

# MOTORCYCLE

RIDE 'EM, DON'T HIDE 'EM

## CLASSICS

March/April 2019

# HAILWOOD DUCATI

**RIDDEN!**

ON TRACK WITH  
VEE TWO AUSTRALIA'S  
1978 TT-WINNING  
HAILWOOD DUCATI REPLICA



### PLUS:

- AMERICAN HELL-RAISER: 1956 HARLEY-DAVIDSON KHK
- UNDER PRESSURE: 1983 HONDA CX650 TURBO
- THE FRENCH BMW: 1961 RATIER C6S 600cc BOXER TWIN

\$6.99 • Vol. 14 No. 4 • Display Until Apr. 15







# OLD SCHOOL 2.0

FEATURING

**Cowhide**

**VARIABLE FLOW™**  
VENTILATION SYSTEM

**YKK®**

SPECS:

- 1.0 TO 1.2MM COWHIDE LEATHER
- COMFORTABLE RELAXED FIT
- POCKETS FOR OPTIONAL ARMOR AT THE SHOULDERS, ELBOWS AND BACK
- REMOVABLE QUILTED FULL SLEEVE LINER
- 2 ZIP HAND POCKETS
- 5 INSIDE UTILITY POCKETS
- VARIABLE FLOW™ VENTILATION SYSTEM FRONT AND BACK
- HIGH DENSITY PADDING IN ELBOWS & SHOULDERS
- ADJUSTABLE WAIST & CUFFS
  - YKK® ZIPPERS
- COMFORT NEOPRENE EDGE ON COLLAR
- SUBTLE EMBROIDERED TONE ON TONE BADGING

AVAILABLE IN SIZES; SM TO 3XL

MSRP STARTING @

**\$299.99**

BLACK / RED

**Joe Rocket**

distributed by Sullivans Inc.

MA 800-343-5984

AL 800-874-9778

NV 800-447-7505

BLACK / YELLOW

BLACK / GREY

OLD SCHOOL 2.0 BLACK / RED SHOWN WITH RPHA-11 PRO & V-SPORT GLOVE



The K line was Harley's response to the British onslaught of the 1950s, and the KHK was the toughest of them all. Page 22.



NICK CEDAR

## FEATURES

- 10 BACK TO THE FUTURE: 1983 HONDA CX650 TURBO**  
Dean Stuckmann has four Honda Turbos, and this perfect CX650 is the nicest of the bunch.
- 16 VEE TWO HAILWOOD REPLICA**  
Vee Two Australia is building 12 perfect replicas of Mike "The Bike" Hailwood's epic 1978 TT-winning Ducati. Alan Cathcart rides and reports.
- 22 1956 HARLEY-DAVIDSON KHK**  
Any K-model Harley is rare, but the KHK is the rarest of the rare, with just 1,163 built in two years.
- 30 VETTER MYSTERY SHIP**  
Craig Vetter's way-out Kawasaki-based creation.
- 38 1914 MILITAIRE**  
Part car, part motorcycle, and altogether unusual.
- 44 THEY'RE ONLY ORIGINAL ONCE: 1968 YAMAHA DT-1**  
Yamaha super-fan Al Brotz wasn't looking for a perfectly original DT-1, but when he found one, he knew he had to be its next custodian.
- 50 FRENCH BOXER: 1961 RATIER 600 C6S**  
The Ratier's boxer twin looks very much like a contemporary BMW's, but with slightly smoother styling. There's a very good reason for that.
- 56 IRON PIG ACROSS AMERICA**  
Riding a 1970 MZ ES250/2 from LA to NYC.
- 60 1941 BMW R75 SIDECAR RIG**  
Once a war machine, now a piece of history.
- 66 2019 TRIUMPH SPEED TWIN**  
Riding the latest version of the revived Bonneville.

## DEPARTMENTS

- 2 BLACK SIDE DOWN**  
The editor speaks.
- 4 READERS AND RIDERS**  
Restoring a Bultaco and remembering a few Hondas.
- 6 ON THE RADAR**  
1977-1980 Kawasaki KZ650.
- 8 SIDECAR**  
The Ride 'Em, Don't Hide 'Em Getaway returns.
- 72 HOW-TO**  
We install a pair of Lansdowne adjustable dampers for Norton Commandos.
- 78 KEITH'S GARAGE**  
Keith's fixes will keep your vintage bike up and running.
- 80 TEST RIDE**  
Riding shorts, riding jeans and a new helmet.
- 82 DESTINATIONS**  
Mesa Verde National Park in Colorado.
- 84 CALENDAR**  
Where to go and what to do.
- 86 COOL FINDS**  
New stuff for old bikes.
- 96 PARTING SHOTS**  
Remembering the Harley-Davidson RR250/350.

ON THE  
WEB!

## Wanna race?

The guys and gals on the track will all tell you the same thing: Vintage motorcycle racing is so much fun, it's hard to believe it's legal. Ad man Shane Powers has taken that to heart, and we're going to pitch in with parts and labor to help Shane get his 1970 Honda CB350 eligible to race in AHRMA's Novice Historic Production road racing class. And he's going to need all the help he can get turning his ratty \$93 swap-meet Honda into an AHRMA-eligible machine! Follow along by going to [MotorcycleClassics.com/AHRMA-CB350](http://MotorcycleClassics.com/AHRMA-CB350)





## Forward motion

One of the best — if not *the* best — aspects of motorcycling is the people. When I first got into motorcycles, the motivation was simple: I wanted to ride. An immediate and unanticipated bonus was being introduced to the motorcycling community, and discovering what an incredible resource of people of passion and capacity it contained. I'd never been a club guy or belonged to many organizations, but suddenly I found myself a member of one of the greatest "clubs" in the world. It was — and still is — amazing. That was 40-plus years ago. Fast-forward to today and I still can't believe my incredible fortune in getting to turn my passion into my work, work where I'm surrounded by the community of motorcyclists every day.

It's likely that most of you know little about our parent company, Ogden Publications. In addition to *Motorcycle Classics*, we produce a number of different enthusiast publications, covering subjects ranging from self-sufficient living and homesteading to vintage farm tractors and engines, and heirloom plants. All of our titles are defined and motivated by that same recognition and embrace of community, and we're committed to being active, positive members of those communities. Take Hank Will, our editorial director; when he's not commuting to work on his old Honda XL500 or Suzuki DR650, you'll find him cruising the fence lines on his rural farm where he practices small scale, alternative agricultural strategies, a driving passion in his life for as long as motorcycling has been in mine.

Publishing *Motorcycle Classics* has been the realization of a dream, and we don't take it for granted. Moving forward, we're getting ready to embrace our communities in a new way, one we think will better serve those communities and make us more sustainable as a business in the process. Beginning sometime in 2019, likely in the first half of the year, we'll embark on a new mission where we no longer look at ourselves as just a magazine and events business (you probably didn't know we produce the Mother Earth News Fairs held across the country every year), but instead as a truly community-inspiring wellspring that feeds and is fed by an enthusiastic and engaged community of individuals.

Moving forward with us, you won't simply subscribe to *Motorcycle Classics* or one of our sister publications, you'll also get to choose membership in one or more of our communities. You'll still receive *Motorcycle Classics* magazine just as you have now for almost 14 years, so don't worry, nothing changes there. But for the same price of your subscription you'll also have full access to our soon-to-be-gated websites including exclusive member-only premium material such as videos and podcasts, fixed discounts on books and products in our online store, reduced entry fees to certain events and museums, and more, because we're still building the benefits list.

None of this happens without you, and the fact that we're here and moving forward with new models to build our communities is only because of your interest in being a part of the vintage motorcycling scene. We'll have more details to share soon, but feel free to drop me a line at [rbackus@motorcycleclassics.com](mailto:rbackus@motorcycleclassics.com) with any thoughts or questions about the magazine or our future.

Richard Backus  
Editor-in-chief



## Motorcycle CLASSICS

RICHARD BACKUS, EDITOR-IN-CHIEF  
[rbackus@motorcycleclassics.com](mailto:rbackus@motorcycleclassics.com)

LONDON HALL, MANAGING EDITOR  
[lhall@motorcycleclassics.com](mailto:lhall@motorcycleclassics.com)

ARTHUR HUR, ASSOCIATE EDITOR/ONLINE

### CONTRIBUTORS

PHIL AYNLEY • JEFF BARGER • JOE BERK  
ALAN CATHCART • NICK CEDAR • HAMISH COOPER  
JEAN DENNEY • KEL EDGE • KEITH FELLESTEIN  
DAIN GINGERELLI • PHIL HAWKINS • KIM SCHOLER  
MARGIE SIEGAL • ROBERT SMITH • HANK WILL  
GREG WILLIAMS

### ART DIRECTION AND PREPRESS

MATTHEW T. STALLBAUMER, ASST. GROUP ART DIRECTOR  
TERRY PRICE, PREPRESS

### CONVERGENT MEDIA

BRENDA ESCALANTE; [bescalante@ogdenpubs.com](mailto:bescalante@ogdenpubs.com)

### WEB AND DIGITAL CONTENT

TONYA OLSON, WEB CONTENT MANAGER

### DISPLAY ADVERTISING

(800) 678-5779; [adinfo@ogdenpubs.com](mailto:adinfo@ogdenpubs.com)

### CLASSIFIED ADVERTISING

(866) 848-5346; [classifieds@motorcycleclassics.com](mailto:classifieds@motorcycleclassics.com)

### NEWSSTAND

MELISSA GEIKEN, (785) 274-4344

### CUSTOMER CARE

(800) 880-7567



BILL UHLER, PUBLISHER

OSCAR H. WILL III, EDITORIAL DIRECTOR

CHERYLYN OLMSTED,  
CIRCULATION & MARKETING DIRECTOR

BOB CUCCINIELLO,  
NEWSSTAND & PRODUCTION DIRECTOR

BOB LEGAULT, SALES DIRECTOR

CAROLYN LANG, GROUP ART DIRECTOR

ANDREW PERKINS  
DIRECTOR OF EVENTS & BUSINESS DEVELOPMENT

TIM SWIETEK, INFORMATION TECHNOLOGY DIRECTOR

ROSS HAMMOND, FINANCE & ACCOUNTING DIRECTOR

MOTORCYCLE CLASSICS (ISSN 1556-0880)

March/April 2019, Volume 14 Issue 4

is published bimonthly by Ogden Publications, Inc.,  
1503 SW 42nd St., Topeka, KS 66609-1265.

Periodicals Postage Paid at Topeka, KS and additional  
mailing offices. POSTMASTER: Send address changes to  
Ogden Publications, Inc., 1503 SW 42nd St.,  
Topeka, KS 66609-1265.

For subscription inquiries call: (800) 880-7567

Outside the U.S. and Canada:

Phone (785) 274-4360 • Fax (785) 274-4305

Subscribers: If the Post Office alerts us that your  
magazine is undeliverable, we have no further obligation  
unless we receive a corrected address within two years.  
©2019 Ogden Publications Inc. Printed in the U.S.A.





TIME TO CONSIGN

# PHOENIX

MARCH 14-16, 2019 • 100 MOTORCYCLES

---

STATE FARM STADIUM • GLENDALE, AZ



THE WORLD'S LARGEST SELLER OF ANTIQUE MOTORCYCLES



**MECUM**  
**AUCTIONS**  
PRESENTED BY  **State Farm**

THE EXPERIENCE BEGINS AT [MECUM.COM](http://MECUM.COM)

AZ License L00015902

For Complete Auction Consignment or Bidding Information go to [Mecum.com](http://Mecum.com) or call 262-275-5050

 **NBCSN**



## “Their product is spot on and priced right.”

### All flavors

I just started reading *Motorcycle Classics* last year, but I’ve been riding motorcycles since 1964, when I jumped on my brother-in-law’s “twingle” Allstate/Puch 175. Many motorcycles and years later, I’m happy to say that I’m still learning about the history and technology of older motorcycles and I am particularly interested in what your magazine has to say and show — about ALL models.

Please keep up the great work. I love all motorcycles from all countries and all sizes and styles. Don’t change a thing. For those naysayers who denounce Japanese motorcycles,

I say, “Do your homework!” When I was old enough to drive legally, I bought my first motorcycle, which was a used Honda 50 Super Sport Cub with a 4-speed, manual clutch and gas tank on top. When I was a kid, the word “motorcycle” brought forth visions of Hell’s Angels with big and loud motorcycles: Marlon Brando on a Triumph and Lee Marvin on a Harley and ugly bullies. Then along came “You Meet the Nicest People on a Honda” ads along with the Frankie and Annette beach movies and the word “motorcycle” was no longer bad. How many people remember Eric Von Zipper saying, “Sickles is betta”?

Motorcycles are like ice cream, not everyone likes the same flavor but they are all good.

Stephen Burgess/Covington, Virginia

### Royal Enfield twins

I’ve been a subscriber for years and an avid rider and restorer. At 65 I don’t see much new that perks my interest, but then your article on the Royal Enfield GT and Interceptor hit my mailbox. Wow, just what I want and have been looking for. A retro-styled modern midsize fun bike for just riding around on. I’ve got Triumphs, BSAs, Nortons, AJSs and plenty of old British iron, but

## RIDERS

**Rider:** Doug Bottcher, Sandpoint, Idaho

**Age:** 60

**Occupation:** Retired lineman

**Doug’s story:** Starting at age 10, I have had in my possession 22 motorcycles ranging in size from 50cc to 950cc. Three years ago my wife and I had 13 motorcycles in the garage, some vintage, some modern and all in working order. We currently have and ride a 1965 Bultaco Model 9 155cc Mercurio, a 1974 Bultaco Model 115 250cc Alpina, a 1980 Yamaha SR500 and a 1973 Bultaco Model 98 175 Alpina. This bike was purchased for me when I was 15 years old. I still have the original receipt for \$816, purchased from Frank Thieme at Cycle Haus.

I raced a 370 Pursang when I was in high school. My love for Bultacos has kept me looking for them almost daily. This Bultaco Campera was a rare find. Very few Camperas were imported and even fewer found their way to the West Coast. I bought it on eBay from a guy in Colorado who said he found it in Wyoming leaned up in someone’s shed. With only 1,100 miles on the odometer it spent a lot of time leaning. After measuring the ring gap and overall condition I believe this mileage to be correct.

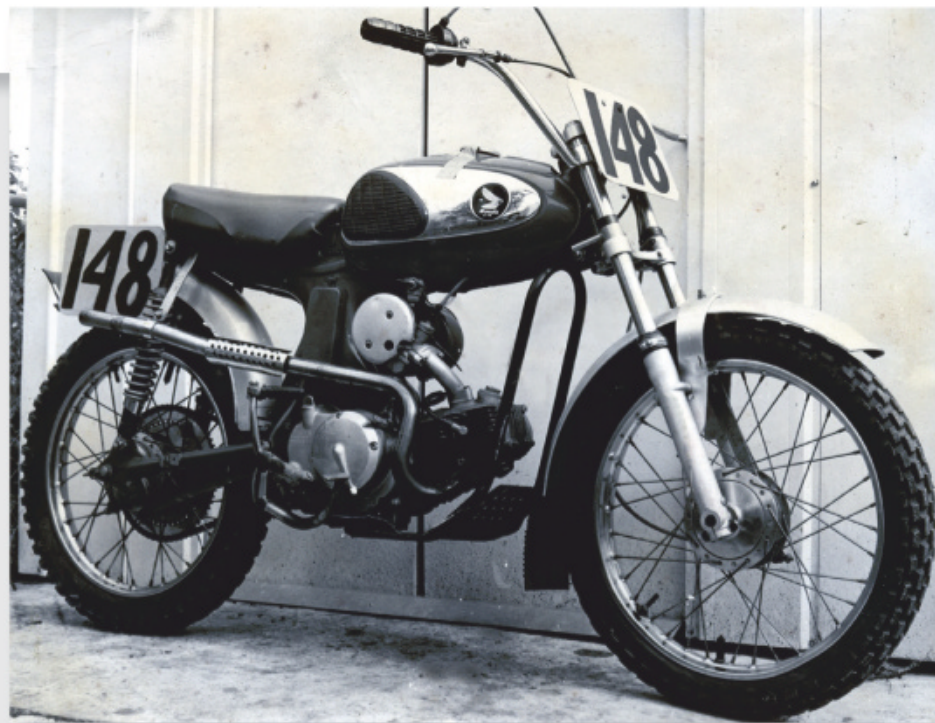
All parts are original with the exception of seat foam and cover, kickstart and shift lever rubber. The rims are straight and true with chrome in good shape. It was completely disassembled, the frame blasted, primed and painted. I took the shocks and tank to be painted by A-10 Auto. Allen has done beautiful work on my fiberglass tanks and this steel one is no exception. I replaced all the wiring and pulled it through the frame as was the way of Bultaco street bikes of the day. That was something else! New fork seals, engine gaskets, chain and tires were installed and we were ready to ride. After tickling the Zenith carb and flipping its choke lever the bike started on the second kick.

My wife and I get a lot of thumbs up when we ride the Campera and her Mercurio. I have had seven other Bultacos and this one is probably the most unique; although I could always make room for a nice Bultaco El Tigre!



Doug’s Bultaco Campera before (top) and after restoration.





Steve Anthes' 1969 Honda CB750 (left) and his first bike, a Honda S90, turned into an enduro racer (right).

### Best issue ever

Great January/February issue on many levels. Before some readers get their leathers in a bunch, I for one enjoy the reviews of modern classics like the Royal Enfield 650 Twins. The new Ducati Scrambler, the Honda CB1100 and the Norton 961 are well-engineered machines displaying a classic design while using modern technology. Nothing wrong with that. The article on the RE 650 hit a nostalgic nerve since I lived in Santa Cruz, California, in the early 1980s and recognize West Cliff Drive as a background for the photos. I rebuilt a 1969 CB750 that was my only transportation for years. Rides along the Pacific Coast Highway and into the redwoods to Alice's Restaurant are fond memories. And the

mention of my hometown, Manasquan, New Jersey, in *Rides and Destinations* triggered a flashback. Many rides along Ocean Avenue 50 years ago on my first bike, a Honda S90, are long gone but not forgotten. I turned the S90 into a dirt bike with Ceriani forks and raced in the Monmouth Shore Points MC club enduros. As a former industrial designer, I enjoyed the article on the Maico Mobile MB200 scooter. The design is a beautiful example of form and function. Art nouveau on two wheels. Keep the great articles coming in my favorite magazine. I read each issue cover to cover in two days — then reread again while anxiously waiting the next issue.

Steve Anthes/via email

here's something new of modern manufacture that I can count on as a daily ride. Your article has piqued my interest so much that I've decided to buy one. I attended the International Motorcycle Show in Dallas last weekend hoping to see one in real life. Sadly, Royal Enfield and Triumph were absent from the show. I believe that RE should have showcased there. There was a lot of traffic on the floor and a lot of older riders who, like me, are looking for a retro-styled machine, under 500 pounds and not a sport bike, that will cruise around at 65-75mph all day long. Thanks for the great article and tell RE they need to merchandise to us older retro riders. Their product is spot on and priced right. As soon as I can find one in the DFW area it's going to live in my garage with all my old British iron.

J. Aaron Cundall/Denton, Texas

### Lighter is better

I finally read the July/August issue. I guess this makes me a slow reader in some circles. I agree totally with your editorial touting the virtues of 500-pound and less motorcycles. I'm 68 years old. I've been riding for 49 years. Back in the day a Triumph Bonneville or a Harley Sportster was considered a big bike and these bikes weighed less than

500 pounds. Over time I've watched motorcycles morph into larger and larger beasts now exceeding the 1,000-pound mark. Riding a motorcycle this large is akin to Capt. Ahab atop the back of Moby Dick. Years ago I noticed I was acquiring larger motorcycles at each go-around until I finally hit the wall. I didn't enjoy riding anymore. Now none of the bikes in my small collection exceed 500 pounds and the joy of riding has returned. I have also noticed the average American increased in size considerably during this period. I wonder if there is a correlation? Larger people need larger motorcycles. Just a theory. Keep up the good work.

David Shell/via email

### Katana Kollection

It's not clear from Bud McIntire's piece on the original Suzuki Katana (January/February 2019) what, precisely, it was designed for. It wasn't to be "attention-grabbing," it was to beat BMW on Germany's autobahns, specifically the R100RS. The Beemer had a top speed of 121.5mph, while the GS1100SZ could go up to 147mph. Indeed, I bought my Katana in 1981 specifically because I found my BMW R100CS developed a slight weave at 115mph (because of the bikini faring). You could ride the

big Suzuki up to that speed in the normal riding position. Duck down to look through the tiny fairing (which felt like you were piloting an ME109) and the speed bumped up to 130mph and kept climbing to its maximum.

At that speed on a country road 27 feet wide, the telephone poles flash past like fence posts, the horizon comes rushing towards you like a movie; it's exhilarating. It's also very good in the rain at over 100mph, an experience that has to be lived to be believed. I can remember coming up alongside an econobox on a divided highway at night, slowing down to pass without a cloud of mist, and seeing a young boy looking out at me from the back seat as if I were from Mars. I waved, and then disappeared into the distance, just like a space ship.

At other times, I would spot another biker on the highway ahead, and come cruising up to him from nowhere with a closing speed of 50mph. Imagine the surprise when you're already doing 70. With that kind of speed separation, loosely mixed traffic feels like it's stopped and you can bob and weave accordingly. Good times. I hope Ken Edgar realizes what he's got there.

Frank Hilliard, Penticton, British Columbia, Canada



## Forty-Inch Flyer: 1977-1980 Kawasaki KZ650

In marketing-speak it's called a "unique selling proposition," or USP. It's the feature or benefit that makes your product stand out from the rest. In the era of the ubiquitous Universal Japanese Motorcycle — across the frame, air-cooled, overhead cam 4-stroke multi — each of the Big Four knew they had to be in this market: But how to give their UJM a USP?

Honda set the stage with the single overhead cam CB750. Kawasaki fired back with the dual overhead cam 900cc Z1. Honda tried the undercut with 350, 400, 500 and 550 fours. Suzuki made the first dual overhead cam 750, the GS. Yamaha tried a triple. Kawasaki responded with a new capacity: 650cc (40ci).

Kawi asked Z1 designer Ben Inamura to develop the KZ650. And while the Z1 inherited some engine design features from Kawi's strokers (like the built-up crank), Inamura started with a clean slate for the KZ650. The goal: a 650 that could run with the 750s, while making the engine mechanically quieter and easier to mass produce than the Z1.

The 650 used a one-piece crank with five shell main bearings and split connecting rod big ends (whereas the Z1 had roller bearings and one-piece connecting rods on a built-up crankshaft). A chain and central sprocket drove the two overhead camshafts, running directly in the cylinder head (they ran in shell bearings in the Z1). The cams operated the valves directly, with adjustment by shim under bucket (Z1: shim over bucket). A 24mm Mikuni fed gas to each iron-lined alloy cylinder and the spark plugs were fired by two coils via mechanical contact breakers. A car-type, controlled-field, crankshaft-mounted alternator (Z1: permanent magnet) and regulator/rectifier generated 12 volts. Starting was electric with kickstarter backup. Primary drive was by HyVo chain to a jackshaft (Z1: direct geared) with integral cush drive, carrying the starter and oil pump, then by



straight-cut gears to a multiplate clutch and 5-speed gearbox.

Wire-spoked 19-inch front and 18-inch rear wheels attached to the frame via a telescopic front fork and 5-way adjustable spring/shock units at the rear. A single 10.75-inch front disc and a 7-inch rear drum provided braking. The frame itself was sturdier than the Z1, with larger diameter tubes, triangulating gussets and beefier engine mounts, although the swingarm — a known Z1 weakness — was similar to the 900.

How did the 650 stack up on the strip? A standing quarter of 13.5 seconds at 98mph handily dispensed with Honda's closest competitor, the 550, but couldn't stay with any of the 750 UJMs, which ran in the high-12s. In weight terms, the Kawi split the CB550 and Suzuki's GS750 at 498, 455 and 532 pounds, respectively; and at \$2,000 it split the price, too (roughly \$1,800 and \$2,200.) On the street, the KZ performed and handled at least as well as the competition, though *Cycle World* gave the "smallest possible vote in favor of the overall handling of the GS (750), mostly because the swinging arm and rear shocks feel as though they do just that much better work."

*Cycle Guide's* tester acknowledged the stiffer frame gave "less of the flexi-flyer action that bothers the Z in hard, fast corners.



## ON THE MARKET 1979 Kawasaki KZ650: \$1,200

If the used market is any indicator, Kawasaki's middleweight 650cc didn't exactly light up the stage, as pickings are pretty slim. That could be simply a reflection of the fact that as a middleweight UJM, it wasn't a bike anyone truly aspired to or bothered to hold onto. Like many machines of its era, once it got a few years and miles on it, a KZ650 was just an old bike of no particular value. We found this 1979 KZ650, definitely the nicest of the small number we found online, on Kansas City Craigslist. Showing a low 8,540 miles on the odometer, it was a clean survivor, but suffering cosmetically from the unfortunate aftermarket seat. Remarkably, a search of eBay turned up several stock replacement seats, two in excellent condition, although at a price: \$550 for the best one, and \$250 for the next best. An honest bike needing some love, it looked to be a reasonable buy at the \$1,200 asking price.



"It's far too competent a motorcycle not to like."

## KAWASAKI KZ650

Years produced	1977-1980
Power	49hp @ 8,000rpm (at rear wheel/period test)
Top speed	108mph (period test)
Engine	652cc air-cooled DOHC inline four
Transmission	5-speed, chain final drive
Weight (wet)/MPG	498lb/44mpg (avg./period test)
Price then/now	\$1,995 (1977)/\$700-\$2,200

The KZ650 responds and maneuvers delightfully." They described the ride as "pleasant by current standards," adding, "The biggest gripe with the shocks, though, is their apparent lack of damping, especially in rebound," to which the tester attributed a high-speed wallow. That said, the KZ was "sprung tautly enough to prevent premature grounding on hard corners." The brakes were "decent ... never in danger of running out of stopping power."

So did the KZ650 deliver a USP? *Cycle* magazine's praise was

faint: "Staffers liked Kawasaki's new 650. It's far too competent a motorcycle not to like ... At the same time, no one was wildly enthusiastic ... it was bigger and bulkier and heavier than expected." *Cycle Guide* was more enthusiastic: "For most riders, it will be a whole bunch easier and more fun to ride than a Z1. And it gives the rider the impression of being almost as fast." Summing up, *Cycle World* said: "The

KZ650 does offer 750 performance in a more sporting package, and for a few less bucks." **MC**

## CONTENDERS 650cc 4-cylinder alternatives to Kawasaki's KZ650

### 1979-1982 Honda CB650

While the KZ650 was intended to be a 40-incher from the start, the CB650 snuck in the back way. Although it shared few parts with the CB550, it used the same production machinery and tooling, meaning some dimensions were retained. "Its roots lie in the past," *Cycle Guide* said. "It's a remanufactured CB550 with assorted detail improvements to make it both more appealing and economical."

Honda's goal for the 650 was 60 horsepower. That meant a bore and stroke increase giving 627cc, revised combustion chambers and pistons, bigger valves and 26mm Keihin carburetors. Oil capacity and cooling were increased to dissipate the extra heat.

With screw-adjustable valve clearances, easy access to spark plugs and maintenance-free electronic ignition, it was, *Cycle World* noted, "... the sort of engine a dedicated owner could care for himself." With performance comparable to the KZ650, an excellent front brake (though the rear drum could be grabby) and street handling that was good "as it comes out of the box," CW concluded that Honda had "built a motorcycle which works overall as well as or better than its competitors, costs less for the features delivered and is easier to maintain."

- 1979-1982
- 49.5rwhp @ 8,500rpm (period test)/113mph (est.)
- 627cc air-cooled SOHC inline four
- 5-speed, chain final drive
- 467lb (wet)/48mpg (avg./period test)
- \$2,498 (1979)/\$800-\$2,500



### 1981-1983 Suzuki GS650E

We've come full circle. The GS750 inspired Kawi to build a 650 four, but it took Suzuki five years to launch a direct competitor, the GS650E. Like the CB650, the chain-drive GS650E was a grown-up 550 rather than 750 lite. So the E inherited the roller-bearing bottom end, shim-over-bucket 8-valve DOHC top end, and 55.8mm stroke from the GS550. (The shaft-drive GS650G used a new plain bearing crank.)

Larger 32mm Mikuni CVs, revised "swirl" combustion chambers and a compression boost to 9.4:1 meant straight-line performance of the E echoed the GS750 *Cycle World* tested five years before, running the quarter-mile in 12.8 seconds at 102mph. Though the suspension was relatively soft, it was "compliant and controlled," CW said. They also praised the brakes: "powerful and controllable and require just the right amount of lever effort." CW's only gripe about the GS650 was its appearance, which they said "lacks visual excitement." That aside, the GS650E was "the fastest 650 tested to date. It has no handling quirks. It's fun to ride on a variety of roads. It is a well thought out design that has proven to be dependable and long lasting."

- 1981-1983
- 59.8rwhp @ 9,000rpm (period test)/120mph (est.)
- 673cc air-cooled DOHC inline four
- 5-speed, chain final drive
- 480lb (wet)/43.6mpg (avg./period test)
- \$2,569 (1981)/\$900-\$2,900





# The Ride 'Em, Don't Hide 'Em Getaway returns, 2019 shows and Patrick Godet

## Ride 'Em, Don't Hide 'Em Getaway

The 4th Annual Ride 'Em, Don't Hide 'Em Getaway returns to Seven Springs Mountain Resort in Seven Springs, Pennsylvania, Aug. 9-11, 2019, and we're looking forward to another great weekend of food, fun and comradery as we continue to explore the great roads that define Southwestern Pennsylvania's Laurel Highlands.

Southwestern Pennsylvania is a remarkably beautiful region of low mountains, deep valleys and lush forests. Punctuated by picture-perfect farms, it's incredible motorcycling territory, with miles of two-lane blacktop wending through it all. Last year's Saturday ride took us from Seven Springs north to historic Johnstown, Pennsylvania, site of an epic 1889 flood that threatened to wipe the once-dominate steel-producing city off the map. There, we took a ride on the historic Johnstown Incline. Built in 1891 to encourage the local population to build high above the river, it features counter-weighted cable cars riding on rails up an 896.5-foot, 70.9-percent grade. The threat of rain loomed large the day before our ride, but the weather broke just in time.

Legendary motorcycle journalist and regular *Motorcycle Classics* contributor Alan Cathcart was our special guest, rid-

ing with us to Johnstown on a 1973 Yamaha TX750 supplied by Joel Samick at RetroTours ([retrotours.com](http://retrotours.com)), and regaling our group with great stories from his incredible career during the banquet dinner at the end of the day. Sunday morning saw our group back on the road for a great run deep into the Laurel Highlands, our route taking us down barely traveled roads running past covered bridges and through small towns seemingly lost in time, before returning to Seven Springs to pack up and head home.

We're working on this year's route through the highlands, and maybe including a repeat visit to Falling Water, Frank Lloyd Wright's 1937 architectural wonder, a spectacular home built over Bear Run Creek and just 20 miles from Seven Springs.

RetroTours will once again offer rental bikes from its stable of classic '70s twins, and if you're looking for even more adventure link up with them for a round-trip run from their headquarters in Kennett Square, Pennsylvania, for the event. We're looking forward to another special weekend filled with great people, great food and great riding — stay tuned for updates including this year's special guest! For more information and to reserve your spot, go to [MotorcycleClassics.com/PA2019](http://MotorcycleClassics.com/PA2019)

"Southwestern Pennsylvania is a beautiful region of low mountains, deep valleys and lush forests."



Participants at last year's *Motorcycle Classics* Ride 'Em, Don't Hide 'Em Getaway lineup before the Sunday morning ride.



## RIP, Patrick Godet

French Vincent expert Patrick Godet, 67, passed away suddenly on Nov. 25, 2018, at his home in the Normandy countryside. His loss will be keenly felt by Vincent owners and enthusiasts around the world, many of whom used the huge array of high-quality Godet Motorcycles Vincent parts to restore or maintain their original Vincents. Others were fortunate to own one of the more than 250 Egli Vincent V-twins that Godet constructed during the past 25 years with the approval of Fritz Egli himself, the only officially recognized Egli Vincent motorcycles. Fritz has one, and thanks to its electric starter he still rides it today even after turning 80 last year.

Godet became enraptured with the British marque when he bought his first Vincent, a Black Shadow, in 1974 at the age of 23 after completing his military service. He then used his saved up military pay to establish a restoration and tuning business concentrating on Vincents. He



Frame specialist Fritz Egli (left), taking possession of his Egli Vincent replica from Patrick Godet in 1999.

bought a Black Prince for touring, but when the classic racing scene started in France in 1979, he sold it to raise money to go racing with his modified Black Shadow, which evolved into the Spéciale, tuned to Black Lightning specification.

Godet's fanatical attention to detail and dedicated enthusiasm in helping his customers brought him business from around the globe. After expanding into a new, 6,500-square-foot factory with a six-man workforce 12 years ago, he turned

his attention to turning the 500cc Vincent Comet single into a highly competitive classic racer.

After losing his wife, Sophie, to cancer four years ago, Godet threw himself into his business with renewed gusto and to good effect with the help of his business partner, Florent Pagny.

The long line of Vincent owners patiently awaiting their turn to have Godet Motorcycles restore their bikes paid testament to Godet's expertise, and his ability to deliver on expectations. His sad passing means that many of his exciting future projects

will remain unfulfilled, with the brand-new but visually authentic electric-start Vincent Black Prince with 1,330cc V-twin engine and full-enclosure bodywork with special panniers, all made in carbon fiber, that he was working on for an Australian customer, the most tantalizing. "Patrick Frog" spoke English fluently with a glorious French accent; it's hard to think we'll no longer have the pleasure of hearing him live on stage in a classic racing paddock anymore. — Alan Cathcart

## Show time: *Motorcycle Classics* 2019 vintage bike shows

The 2019 show season is roaring up fast, so start making plans now to join us at our favorite annual events.

**July 26-28, 2019**, will see us return to the Road America racetrack in Elkhart Lake, Wisconsin, for the annual **Vintage Motofest** (roadamerica.com), featuring AHRMA vintage racing and the Rockerbox Bike Show. The bike show happens Saturday, and we'll be there heading up judging and awarding, handing out the *Motorcycle Classics* Editor's Choice award along with trophies for the top bikes in five other categories. Laid out in 1955 and nicknamed "America's National Park of Speed," Road America is without question the coolest vintage venue in North America. The AHRMA racing on the historic 4-mile, 14-turn road circuit is spectacular, plus there's live music, a Saturday microbrew tasting, and an opportunity to lap the track on your own scooter Saturday. If you've never been, go.

**Aug. 30-Sept. 1, 2019** — Labor Day weekend — will find us at the Utah Motorsports Campus in Tooele, Utah, for the **14th Annual Bonneville Vintage GP**, (bonnevillevintagegp.com). Look for great AHRMA racing, plus the ever-popular Battle of the CB160s LeMans Start at noon on Saturday and Sunday. We'll host our annual *Motorcycle Classics* Vintage Bike Show, with trophies in five classes including awards for Best Restored and Best Rider in each class. We're waiting for confirmation on the return of the Bonneville Motorcycle Speed Trials (bonneville-speedtrials.com) at the Bonneville Salt Flats, which should happen Aug. 24-29. Check their site for updates, and definitely go if you can; it's an experience you'll never forget.

**Oct. 4-6, 2019**, marks the date for the **15th Annual Barber Vintage Festival**, (barbervintagefestival.org) at the world-renowned Barber Motorsports Park outside

Birmingham, Alabama. The largest vintage motorcycle gathering in the U.S., the Barber Vintage Festival draws an estimated 70,000-plus motorcycle enthusiasts for a mind-blowing weekend of vintage racing, riding and showing. We'll hold technical seminars Friday and Saturday, the *Motorcycle Classics* Vintage Bike Show on Saturday, and we'll finish off the weekend with our Sunday Morning Ride sponsored by Hagerty Motorcycle Insurance, a laid-back run through the beautiful Alabama countryside. There's great AHRMA racing on the incredible 2.4-mile Barber track, and the excellent and expanded Barber Swap Meet returns, as does the Ace Corner, the Century Parade for bikes 100 years old and older, the Globe of Death stunt show and much more. We'll post more info as it becomes available. Don't miss it!



Ken Tripkos running his Norton at Road America Vintage Motofest 2018.









# BACK TO THE FUTURE

## Honda CX650 Turbo

Story by Greg Williams

Photos by Jeff Barger

A visitor to Dean Stuckmann's home in Newton, Wisconsin, would be whisked back to the early 1980s.

At the time, new technologies were launching that changed the way people watched movies and listened to music, and Dean appreciated new technologies such as the Sony Betamax videocassette player and Pioneer LaserDisc player. He still has both of them, set up and functioning, in his home entertainment system.

"I've always really been into new technology," Dean says of his early-adopter status, and that passion carries over to his interest in motorcycles. He continues: "Early in 1981, when motorcycle magazines began running stories about the first Honda CX500 Turbo, I thought the bike was really something special. I went to my dealer, Wickman's Cycle Service in Manitowoc, so I could be the first to get one." Dean traded his Honda CB750F and put money down on a brand-new 1982 CX500 Turbo — sight unseen. Part of the deal included the dealer's wall poster and sales materials, pieces of ephemera Dean continues to maintain in his personal collection. Almost four decades and 77,000 miles later, he's also still got that CX500 Turbo. But that machine was really just a gateway to his ultimate Honda — the rare 1983 CX650 Turbo.

### Turbo fever

We can't talk about Honda's CX650 Turbo without first discussing the CX500. Honda launched the CX500 Turbo in 1982 as a technological tour

*de force*, but they were not the first motorcycle manufacturer to use a turbocharger to stuff more fuel and air into an engine for more power. In the 1930s, British and European race teams were experimenting with superchargers — a slightly different method of forced induction where a "blower" takes its power from a crankshaft pulley, compressing the fuel/air charge. A turbocharger, by comparison, uses waste exhaust gases passing over a turbine, which in turn spins a compressor wheel to cram a dense fuel/air mixture into the combustion chamber. The result? Greater power in a smaller powerplant.

Kawasaki, working with California-based Turbo Cycle Co., launched a turbo-powered bike in 1978 with the Z1R-TC, but it was a bike some called a crudely developed concept and didn't last past the 1979 model. Honda was next with the CX500T of 1982, and it bristled with advanced computer control systems to ensure everything worked as intended. Honda wasn't alone, as Yamaha was right behind with the 1982-1983 XJ650LJ Seca, and in 1983 Suzuki introduced the XN85. Kawasaki didn't roll over, coming out with its own turbo-powered bike for 1984 and 1985 with the ZX750E1.

### The CX500

In planning for a turbo-powered bike, Honda chose the tried and true CX500 platform. Tough and reliable,



the CX500 featured a 497cc liquid-cooled V-twin, placed across the frame similar to a Moto Guzzi layout, and with shaft final drive. The CX500 produced 50 horsepower and weighed just a little less than 500 pounds wet. When the turbo was installed, power was increased to 82 horsepower, and the CX500 Turbo bristled with modern tech, including fuel injection and electronic ignition. Other advancements included Honda's TRAC anti-dive front brake system and Pro-Link monoshock rear suspension.

Honda issued a corporate statement about turbo development, saying that since the early 1970s Honda had been considering transportation "priorities" that would exist by the 1980s. Honda's statement noted that the "new decade would demand increased efficiency," adding that "engines displacing less than



## 1983 HONDA CX650T

**Engine:** Turbocharged 674cc OHV liquid-cooled transverse 80-degree V-twin, 82.5mm x 63mm bore and stroke, 7.8:1 compression ratio, 16.4psi max boost, 100hp @ 8,000rpm

**Top speed:** 139mph (period test)

**Fueling:** Computerized fuel injection

**Transmission:** 5-speed, shaft drive

**Electrics:** 12v, electronic ignition

**Frame/wheelbase:** Backbone-type with engine as a stressed member, round/box-section mild steel/58.9in (1,495mm)

**Suspension:** Showa air-adjustable fork with adjustable TRAC anti-dive front, Honda Pro-Link with Showa single shock w/adjustable air pressure and rebound dampening rear

**Brakes:** Dual 10.9in (276mm) discs front, single 10.9in (276mm) disc rear

**Tires:** 100/90 x 18in front, 120/90 x 17in rear

**Weight (wet):** 571lb (259kg)

**Seat height:** 31.1in (790mm)

**Fuel capacity/MPG:** 5.3gal (20ltr)/40-50mpg (est.)

**Price then/now:** \$4,998/\$4,000-\$6,000

1,000cc would take on major significance due to their fuel efficiency. Yet the modest power ratings of these small engines suggested that accepted levels of acceleration and performance would have to be compromised at the same time."

Not so, decreed Honda engineers, and two goals were set. "First, the creation of technology that would exploit the fuel efficiency of small engines without sacrificing acceptable levels of performance. And second, the embodiment of that technology in a new kind of high-performance vehicle. The Honda CX500 Turbo meets the challenge of the Eighties by combining fuel-efficiency with high performance," Honda said.

"I got a great kick out of the CX500 Turbo," Dean says. "But it wasn't perfect by any stretch. It's a little sluggish in the lower rev range, and then the turbo







comes on like a sledgehammer around 5,000rpm. I learned this on my initial ride home from the dealer — I cracked the throttle open to pass a car and the bike was a real dog for a couple of seconds, but then it came on so hard I almost rear-ended it. Turbo lag is the main fault of those bikes, and it makes it difficult to ride them fast — especially when you're coming out of a corner. I was never a really hard rider, but I understood the eccentricities of the model."

### The CX650 Turbo

Honda took what it had learned developing the CX500 Turbo, and in 1983 launched the upgraded CX650 Turbo. "Many of the 500TC's shortcomings arose from its modest displacement," an October 1983 article in *Cycle* magazine said. "Off the boost, it felt somewhere between a normally aspirated 250 and 400. Honda has logically increased the displacement of the CX-Turbo, and as a 650 the CX-T has considerably greater off-boost power than the old 500 or

the Yamaha and Suzuki 650 Turbos. Consequently, the Honda is a pussycat in town. Once the engine hits the boost, however, the CX turns into an absolute animal with stunning mid-range punch. In roll-on contests from 60mph against the Superbike King, the Suzuki GS1100, the Honda easily jets away," *Cycle* said.

The CX650 Turbo (and its non-turbo siblings, the CX and GL) featured an 82.5mm x 63mm bore and stroke to displace 674cc. While the 500 turbo ran a 7.2:1 compression ratio, the 650 was bumped to 7.8:1. Also increased were valve sizes, with intakes going from 31mm to 32mm and exhausts from 24mm to 28mm. While the 500 and 650 both had pushrod-actuated four-valve-per-cylinder heads, the 650's had larger intake ports and injector bores, and the intake valves stayed open longer.

Built by IHI to Honda specifications, the turbocharger on the 650 was slightly different than the one first used on the 500. For example, the 650 turbo had a 3mm larger compressor wheel at 51mm

in diameter, although the exhaust turbine stayed the same diameter at 50mm. The waste gate on the 500 would open at 17.4psi of boost, while the 650 had been lowered to 16.4psi.

The engine serves as a stressed member in the backbone-type steel frame that features an aluminum swingarm at the rear with a single air-adjustable shock. The front end is anchored by an air-adjustable fork with 37mm tubes and Honda's TRAC anti-dive valving. An upgrade over the 500 Turbo was a new fork brace.

Dean notes that there were many more differences between the 500 and 650 Turbos, including the fairing, mirrors, windscreen, handlebars, switches and controls, fuel injection system, final drive, exhaust, seat, rear grab rail, tail cowl and rear fender. While the 500 and 650 machines look almost identical, except for color, there is very little that is truly interchangeable between the two.

Although the CX650 Turbo was all around a better bike than the 500, Honda's experiment with turbocharged





Dean Stuckmann's CX650 Turbo is as perfect a specimen as we've ever seen. Dean and his "show" CX650 (right).

bikes ended just two years after it began. Why? Liter-sized bikes were able to do everything a turbo could with less technology, making them cheaper to produce and ultimately less expensive for the consumer. Fewer than 1,200 CX650 Turbos were brought to North America — its biggest market — out of a total production pegged at 1,777.

"I feel that these machines were underappreciated at the time," Dean says of the CX500/CX650 Turbos. "It took some guts for Honda to think outside the box and create these technological marvels. Maybe they were just ahead of their time."

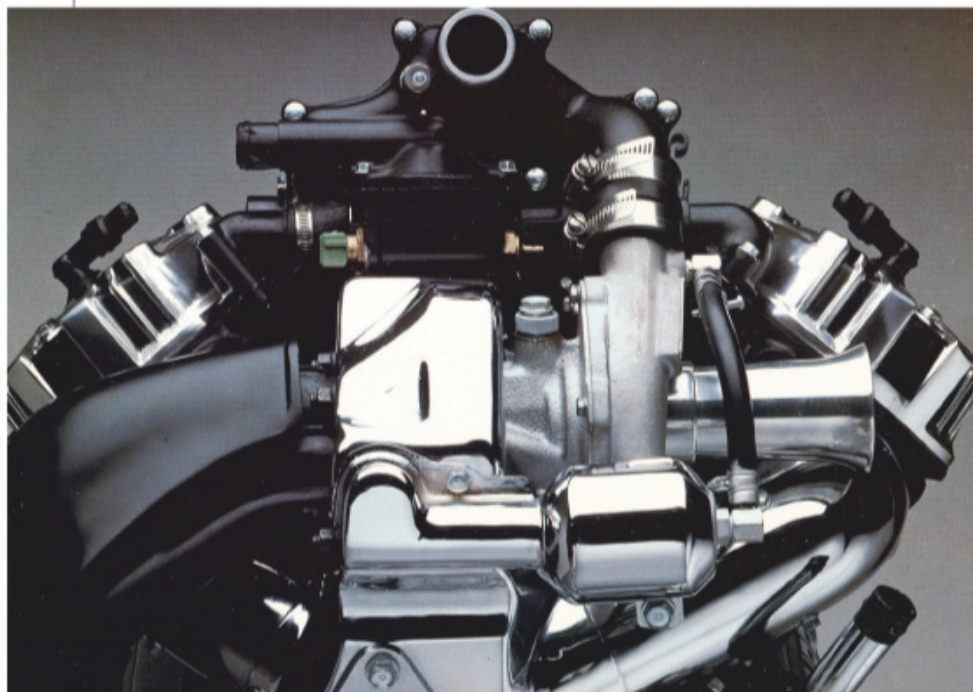
### Up close

Dean knows the Honda models well, having ridden his original 1982 CX500 Turbo from new until 2000. During that time, he replaced two stators, a component he says is a weak link in the model, and here's why: Both turbo and non-turbo CX engines are water-cooled. However, the turbo itself is oil-cooled, and unlike the water-cooled turbos of today, Honda relied on just crankcase oil to cool the turbo charger. Dean believes Honda knew this could be a problem, as they added a finned external oil sump to the bottom of the crankcase to aid cooling, but that

wasn't enough to bring oil temperatures down. The stator is bathed in engine oil, and the higher oil temps wreaked havoc on the stator insulation, which would fail, causing the stator to short out.

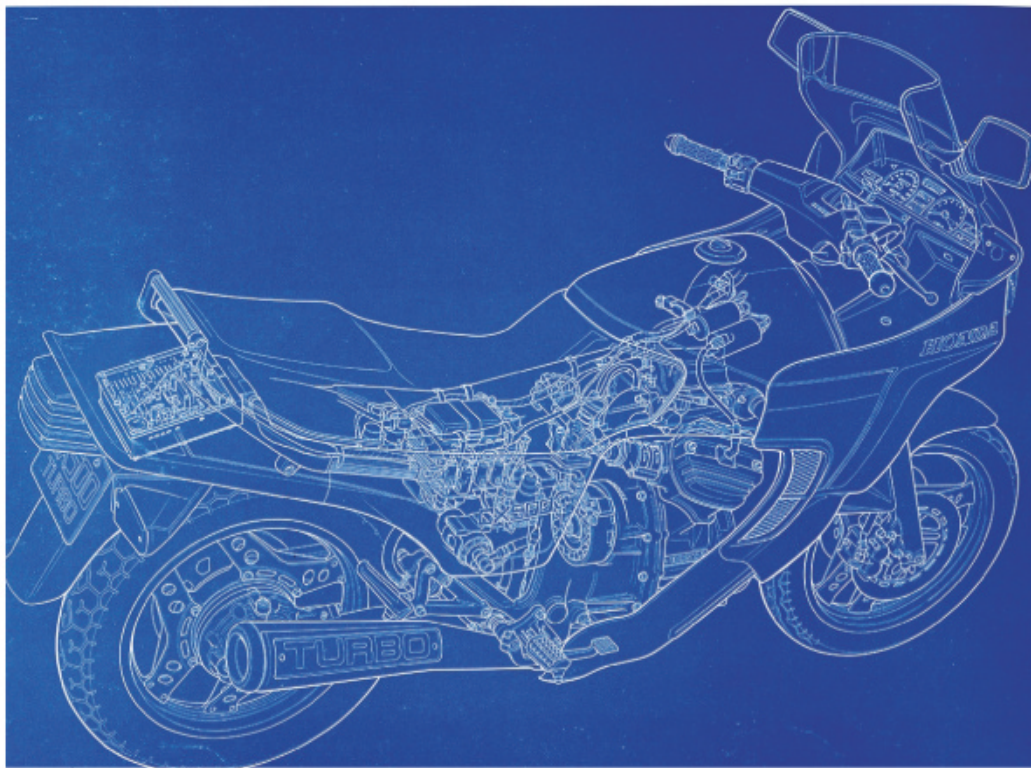
After 50,000 miles, he also needed to replace the clutch basket, and because parts were becoming difficult to find, he went in search of a parts bike. At a salvage yard in Green Bay, Wisconsin, he found two crashed CX500 Turbos. One had been laid down on the left, the other on the right. Included was a new-old-stock fairing; he bought the package.

Back home, looking at his three CX500s,



A CX650 Turbo engine from a brochure shows the turbo nestled at the front, wearing a small velocity stack (left).





This line drawing of the CX650 Turbo was featured in original brochure produced by American Honda (left, and at bottom).

he realized he could build a very nice example that he could ride on Sundays, plus have enough parts left over to still have a daily rider Turbo that he could continue to ride on his 8-mile commute to work. Then, late in 2003, he found the Honda he really wanted — a 650 Turbo.

"I'd always yearned for a CX650 Turbo," Dean tells us, "and I would occasionally see one for sale on eBay, but they were usually a long way from home. Eventually, I found one for sale in Wisconsin that needed some work, and I bought it and fixed it up.

"Not long after that, I told a local ex-Honda mechanic friend of mine that I finally bought one — only to find out that he'd purchased an excellent example only five days earlier! I don't think there were any CX650 Turbos in Manitowoc County for 20 years and now there were two within a week. We compared bikes, and I asked him to give me first dibs if he was ever going to sell his."

When Dean was offered the CX650

Turbo for \$3,800 in early 2004, he snapped it up. It was in excellent condition with low miles, and Dean felt it needed only some detailing to bring it to an exceptional standard. He got the opportunity to do just that only a few months after buying the Honda, when the stator failed. "I've done stators numerous times and I was getting to be an old hand at it," he says. "To replace the stator, the engine has to come out of the frame, so while doing that I took my 'new' CX650 Turbo down to the bare frame to detail everything."

Dean pulled every component and cleaned everything he could get his hands on, including the wiring harness. With the exception of the exhaust and one Turbo emblem on the engine, which Dean painted, nothing was sprayed, plated or powder coated. To detail fasteners, he quickly passed them over a buffing wheel — not to polish them, he says, but just to clean up the surfaces. "There were lots of cleaning solutions and waxes used on the majority of the components," he says.

Most of the engine was left together as it was in fine fettle, and the only replacement parts included an aftermarket stator from Electrex and new tires and brake pads all around. Detailing the CX650 Turbo was a time-consuming process, but the result is a very close to factory-fresh machine, as Jeff Barger's beautiful photographs clearly show.

If you're keeping track, Dean still has four Honda turbos: two 500s and two 650s. One of each size is a relative show bike that will see occasional use. The other two were once daily riders that have been parked for a few years, and while still complete, are now considered parts bikes. Dean put 77,000 miles on his first CX500 Turbo, and after doing some calculating, he figures he's put 20,000 miles on each of his other three. That's a total of 137,000 miles on Turbos since 1982. "After all these years, the feelings I get as the turbo spools up to max boost still brings a smile to my face," Dean says. "Is there a better reason to ride than that?" **MC**

## THIS YEAR IT'S REWRITING IT.

the constantly-monitoring sensors, including boost, throttle-opening, water temperature, air temperature, engine rpm and the twin injectors. This internal diagnostic system greatly simplifies the task of trouble-shooting in the unlikely event of a malfunction. Meanwhile, a backup system keeps the Turbo running until repairs can be made.

To take full advantage of the Turbo's power, its smooth-shifting five-speed transmission has new primary and final drive ratios. And its virtually maintenance-free shaft drive has the dependability and strength to deliver the full thrust of the Turbo's remarkable power with the kind of efficiency you'd expect from a motorcycle this technically advanced.

The CX650T's lean, beautiful fairing actually contributes to the machine's efficiency. Its aerodynamic shape has been wind tunnel developed to help the Turbo to slip through the atmosphere with minimal resistance.



The Turbo's instrumentation uses a combination of analog and digital readouts to provide constant information on speed, engine rpm, engine coolant temperature, fuel level, boost, time and total mileage. Low oil pressure, high beam and neutral indicators are also standard.

tance. And this year's model features a new built-in storage pocket. In combination with the Turbo's ergonomically designed seating position, the fairing offers increased rider comfort and sure control.

The Turbo's rear suspension is Honda's exclusive air-adjustable Pro-Link® single shock system that features a progressive rising rate of shock absorption and three-way adjustable rebound damping. In front, air-adjustable forks equipped with friction-reducing dual Syntallic® bushings offer a plush ride and precise handling. Triple disc brakes with twin piston calipers give the Turbo the kind of stopping power a high performance machine needs. And our Torque Reactive Anti-dive Control (TRAC) system helps to prevent weight transfer to the front wheel when the brakes are applied.

Beautiful all-aluminum ComStar® wheels and special V-rated high-performance tires set the Turbo apart from the everyday crowd. A full instrumentation panel that includes a boost read-out and digital clock, and new rocker-type switches that are easy to operate (even with gloves on) are examples of the unconventional approach to excellence that characterizes this motorcycle.

The CX650 Turbo.

It proves once and for all that technological leadership and sophisticated performance don't have to be complex or exotic.

They just have to be Honda.

### FEATURES:

- Liquid-cooled 674 cc V-twin engine produces 97 hp.
- Forged pistons.
- Air-adjustable Pro-Link rear suspension with adjustable rebound damping.
- Air-adjustable forks with dual Syntallic bushings.
- TRAC helps reduce weight transfer to the front wheel during braking.
- New injection-molded fairing of tough ABS plastic.
- Rocker-type switches.
- Triple disc brakes with twin piston calipers.





# VEE TWO HAILWOOD REPLICA

## Remembering Mike the Bike

Story by Alan Cathcart  
Photos by Phil Hawkins

The 40th anniversary of the late, great Mike Hailwood's fairy-tale comeback win in the 1978 Isle of Man TT, 11 years after he last raced there, and seven since he rode a bike of any kind in international competition while he pursued a car racing career in Formula 1, was suitably commemorated at the 2018 Classic TT last August.

That's when modern-day TT legend John McGuinness averaged over 100mph on a demo lap par excellence aboard the very same Ducati that Mike the Bike used to win the TT Formula 1 race there four decades earlier. Hailwood's victory aboard the Sports Motorcycles Ducati 900 desmo V-twin is rightly considered to be one of the most remarkable feats in the history of motorcycle racing.

But there was an identical-looking bike in the TT paddock awaiting McPint's (John McGuinness' nickname!) return — the first of 12 exact replicas of the original TT-winning Ducati 900 TT F1 race bike that are being constructed in Los Angeles, California, by Vee Two USA ([veetwousa.com](http://veetwousa.com)), and with the full approval of Pauline Hailwood, Mike's widow, and his son, David. Each of the 12 bikes will bear their signatures, and each buyer will receive a personal letter from Pauline, as well as a limited edition souvenir book detailing the creation of his/her bike, and the inside story of Mike's epic 1978 TT win. Why only 12? That production quantity commemorates Hailwood's victorious No. 12 TT racing number. The hand-built machines retail at GBP 110,000 (approx. \$142,500 or 125,000 euros) tax free, with orders already placed for two of the 12.

### Replica reality

Dubbed the V2H, the replica was conceived by Western Australia-based Brook Henry, a respected specialist in the first-generation Ducati 90-degree V-twin desmo engine found in Hailwood's bike. Henry's company, Vee Two Australia, has

secured the original technical drawings, as well the relevant casting molds, for the special factory desmo engine that powered Mike the Bike to that comeback win. This will ensure the engines powering the Vee Two Hailwood Replicas are externally exact copies of the one that took Hailwood to his historic win. "It's always been my dream to build this bike, but it wouldn't have been possible until now," Henry says. "I've worked hard to make it identical externally to the 1978 engine, but it's thoroughly modern inside."

The replica engines, named Ritorno (Italian for comeback), are produced Down Under by Henry, then shipped to California, where each V2H bike will be assembled by expat Brit Paul Taylor, Henry's partner in Vee Two USA. Taylor's American company TMR/Taylormade Racing ([racetaylormade.com](http://racetaylormade.com)) manufactures







performance exhaust systems and carbon fiber bodywork for the motorsports industry. The V2H chassis is built in Italy by Pierobon ([pierobonframes.com](http://pierobonframes.com)), again using the original drawings for the race-winning bike's tubular steel frame made 40 years ago by the now-defunct Daspa. The bodywork is an exact replica of Hailwood's TT-winning machine, right down to the array of stickers on the red and green paintwork reproduced in Los Angeles by screen-printers Sign-All.

"The look of the bike is exactly as when Mike raced it to victory on June 3, 1978, so it's a true Hailwood Replica," Taylor says. "But it's been very difficult to get to this stage because of the lack of detailed information. For example, getting the paint color right was incredibly difficult, as the original bike has been repainted after Mike's various racing incidents. But then we found a chap

who lived above the old NCR workshop in Bologna, whose father was a painter for them. He told us the paint color was actually Lancia Rosso Corsa — but you can't buy it anymore. However, we got put onto an Italian paint specialist who managed to supply us with paint that's identical to the original color. Our aim was to produce a visually exact replica of the bike as it crossed the finishing line, and we believe we've done so."

To help achieve this, Vee Two drew on the expertise of Steve Wynne, the man responsible for sourcing the original NCR-built 900 TT F1 Ducati from the factory, and preparing it under the Sports Motorcycles banner. "Having Steve's support and being able to ask him about things we've spotted in photographs, to get him to separate myth from fact, is very helpful," Henry says, adding, "It's good to have him on board to ensure that each bike we





## VEE TWO HAILWOOD REPLICA

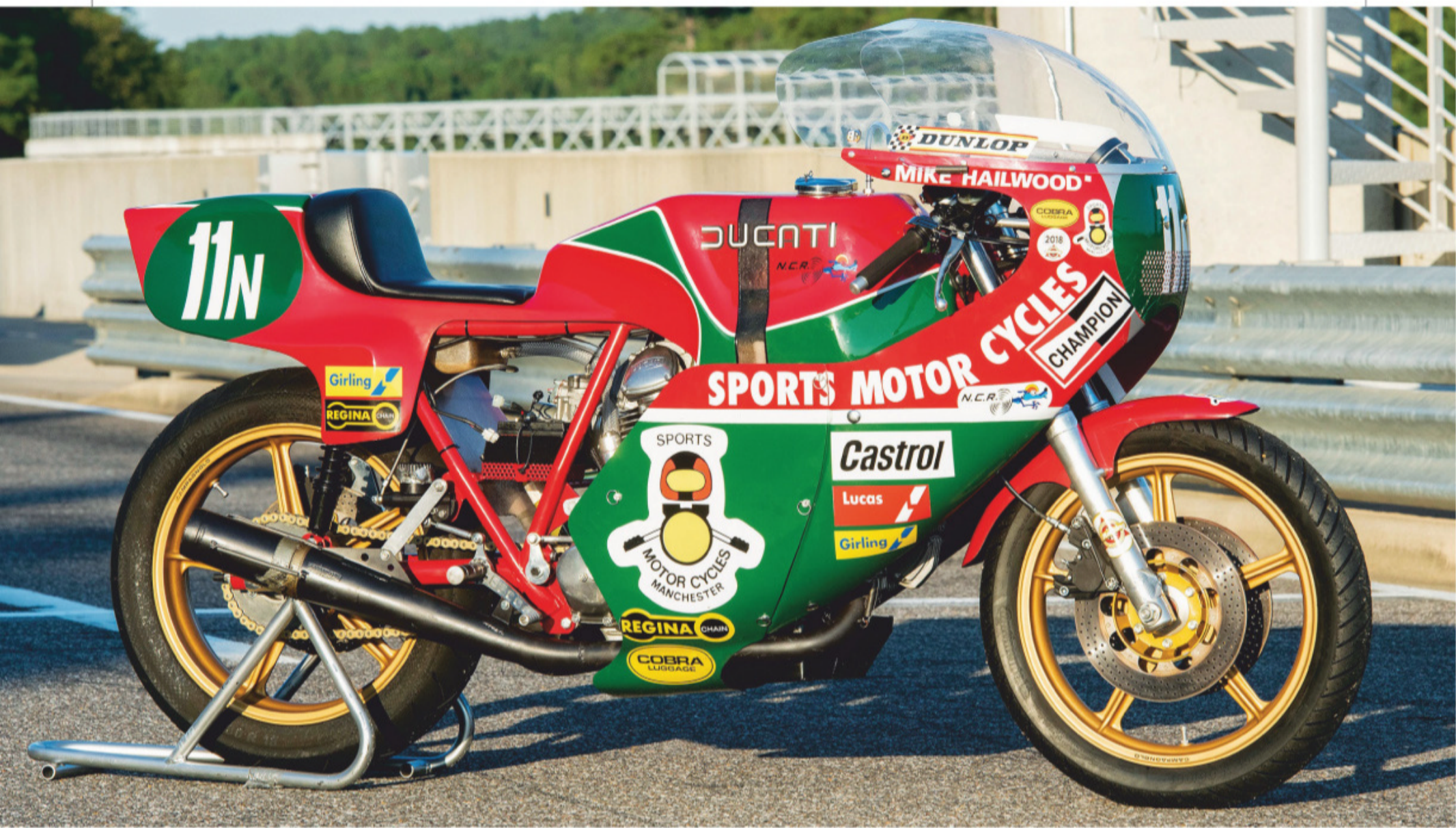
**Engine:** 905cc air-cooled SOHC desmodromic 90-degree V-twin, 88mm x 74.4mm bore and stroke, 11:1 compression ratio, 89hp @ 8,500rpm (at rear wheel)  
**Top speed:** 158mph (Isle of Man TT 1978, original bike)  
**Carburetion:** Two 40mm Dell'Orto PHM  
**Transmission:** 5-speed, chain final drive  
**Electrics:** Coil and breaker points ignition with total-loss 12v battery  
**Frame/wheelbase:** Chrome-moly tubular steel open cradle spaceframe w/engine as semi-stressed member/57in (1,450mm)  
**Suspension:** 38mm Marzocchi telescopic fork front, dual 13-inch Girling gas shocks w/adjustable preload rear  
**Brakes:** Dual 11in (280mm) Brembo cast-iron discs front, single 11in (280mm) Brembo cast-iron disc rear  
**Tires:** 100/90 x 18in front, 130/80 x 18in rear  
**Weight:** 358.6lb (163kg) w/oil, no fuel  
**Price:** GBP 110,000 (approx. \$142,500 or 125,000 euros)



build can legitimately be termed a genuine replica." The feeling is reciprocated. "You might say this bike is actually more authentic than the real one!" Wynne says. "Mike crashed his TT winner a couple of times afterwards, so we had to repair it without worrying about preserving originality. So the Replica Vee Two has built is as close as could be to how the bike was when it crossed the TT finish line to win, whereas the 'real' one has inevitably been modified down the years." The V2H is an identical copy of the genuine ex-Hailwood race-winner now owned since 1998 by American enthusiast Larry Auriana, which Wynne maintains for him.

### On track

I've kindly been permitted by Larry to ride the Hailwood TT-winner in something approaching anger on a few occasions, the first time exactly 20 years ago over 40 laps of the short Mallory Park circuit, in celebration of Hailwood's win in the Post-TT British TT Formula 1 Championship there a week after his TT victory. Hailwood's relatively unsung Mallory Park victory was arguably an even greater achievement than his TT win, because the long-wheelbase, lazy-revving Ducati was fundamentally unsuited to such a relatively tight albeit deceptively fast track. The statue







of him erected beside the entrance to the circuit is well merited!

My chance to sample the first V2H replica came at a quite different kind of racetrack, Alabama's tight, hilly 2.38-mile Barber Motorsports Park during the annual Barber Vintage Festival last October. Brook Henry and Paul Taylor had trucked the bike over from California for this event, providing me the chance to mark their card as the only person so far to have ridden both the genuine Hailwood bike and their facsimile of it.

Slipping astride the V2H was like yesterday once more, recalling in every way the times I've ridden the genuine Hailwood bike, and its identical twin built for teammate Roger Nicholls, which I even raced for its then German owner 25 years ago at a Ducati Club France meeting at Carole, ending up on the podium! That bike later also passed into the hands of Larry Auriana, so today he owns both 1978 Sports Motorcycle Ducati TT F1 racers.

The V2H has the same lazy, off-beat lilt to the torquey, punchy engine's thunderous note emanating from the twin look-alike Lafranconi exhausts, fitted with Triumph internals to try to satisfy the noise police. There's the same stretched-out riding position and the same spare, spartan cockpit occupied only by a classic white-faced Veglia rev-counter, red-lined at 8,500rpm. The same long Tommaselli handlebars are surprisingly steeply dropped, almost 125GP-style, fitted with slender, curved levers that nestle easily into your glove. There's the same stiff operation for the dry clutch, with a sudden pickup as it grips thanks to the stiffer springs fitted to stop it slipping. There's the same fantastic braking response — by the standards of 40 years ago — from the pair of 11-inch Brembo cast-iron front discs and twin-piston calipers, which even by today's standards stopped the bike well once I'd bedded in the new pads, with lots of feel and progressive



The devil is in the details, and the Vee Two Hailwood Replica nails them, down to the engine breather catch can.





response. And there's the same rangy, 57-inch wheelbase, which is roughly 2 inches shorter than Paul Smart's Imola 200-winning 750, as replicated on the green-frame Ducati 750SS I started my racing career on four years before Mike's TT victory, and am still racing today with a Vee Two tuned engine.

Yet in a way, the most remarkable thing you notice at once about the V2H is that just like the Hailwood 900TT1 it replicates, it feels so normal, so easy to sit on and ride by the standards of the late 1970s. Except for the substitution of an oil cooler for the headlamp that you might expect to find in front of you, and that Veglia rev counter staring back at you unaccompanied by a speedo, this could be any bevel-drive Ducati V-twin period road-burner with a fairing ever made.

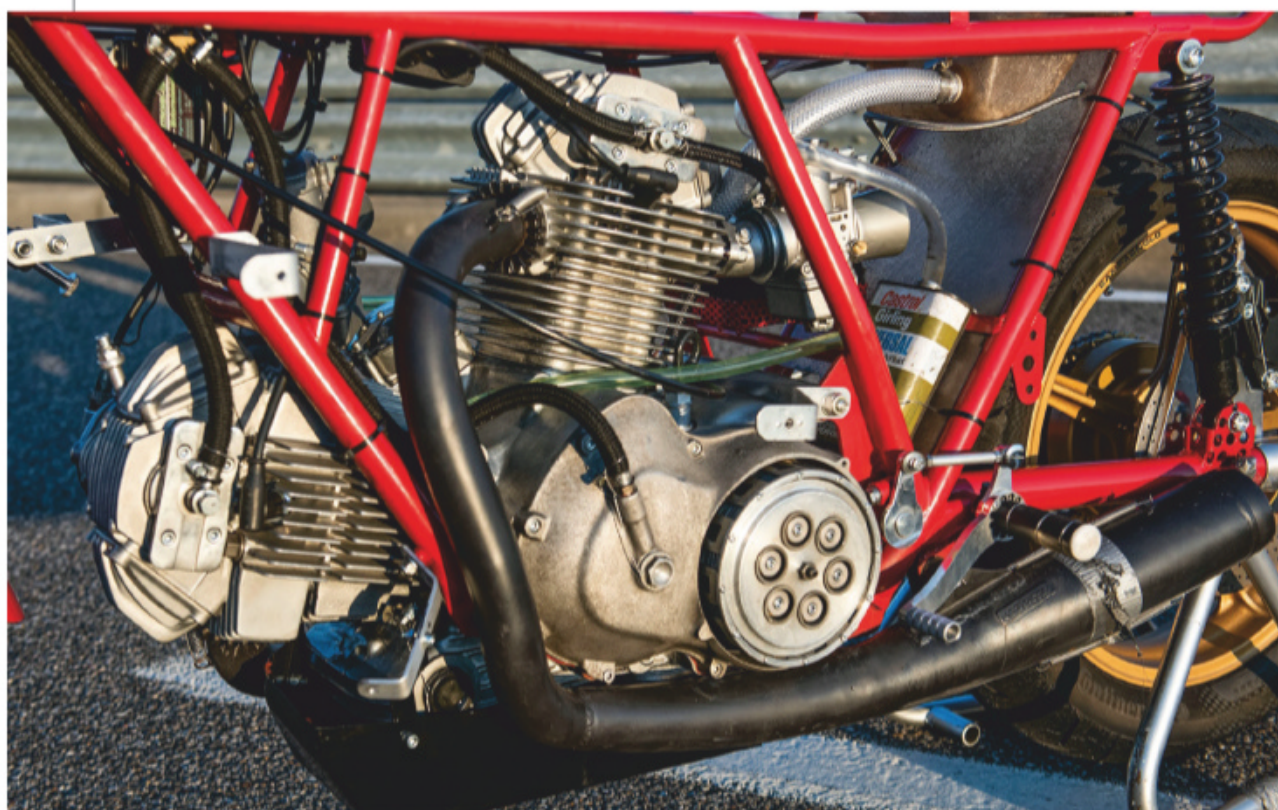
Yet this race chassis is a copy of the specially made lightweight, chrome-moly frame built by Daspa and ridden by Hailwood, with a broader swingarm than the standard 900SS to accept the wider 3.5-inch Campagnolo magnesium alloy rear wheel. This might ideally have worn a treaded Dunlop, but for some reason V2H

No. I was wearing a pair of Continental ContiRoadAttack 18-inch tires, and my two sessions aboard the bike at Barber showed these to be quite unsuitable for the Ducati. They seemingly took quite a long time to warm up on a 90-degree Fahrenheit day, but then continued to feel distinctly unstable, as if the carcass was flexing under the weight and torque of the desmo V-twin, resulting in the feeling of riding on a greasy surface when the track was perfectly clean. Vee Two USA sourced a pair of Pirelli's excellent new Classic racing tires for the races, which allowed fellow Brit Mike Neeves to drop his lap times by four seconds over the Contis, finishing second in one of his two races, then sixth in the other with a slipping clutch after being seemingly poised for the win. This is not a mere show bike, but a genuine repli-racer. Mike the Bike would have approved.

The advent of 13-inch Girling gas shocks like the ones on the V2H, replacing the shorter and less compliant Marzocchis the NCR Ducatis came with, were a godsend to those of us riding desmo V-twins in 1970s races. Not only did they improve handling and help jack up the back end to

remove ground clearance problems, but in doing so they also steepened the effective head angle and sharpened up the steering. It's the same thing here on the V2H replica's race chassis, where just as on the original Hailwood bike, they help make you less aware of that stretched-out wheelbase and conservative steering geometry (27 degree rake, with 3.94 inches of trail), so it steered adequately well into Barber's succession of turns, without ever being exactly nimble. Yet the long wheelbase chassis felt ultra-stable through Barber's fast third-gear chicane, just as Hailwood's bike would have done at testing turns like Alpine Cottage or the Verandah at the Isle of Man.

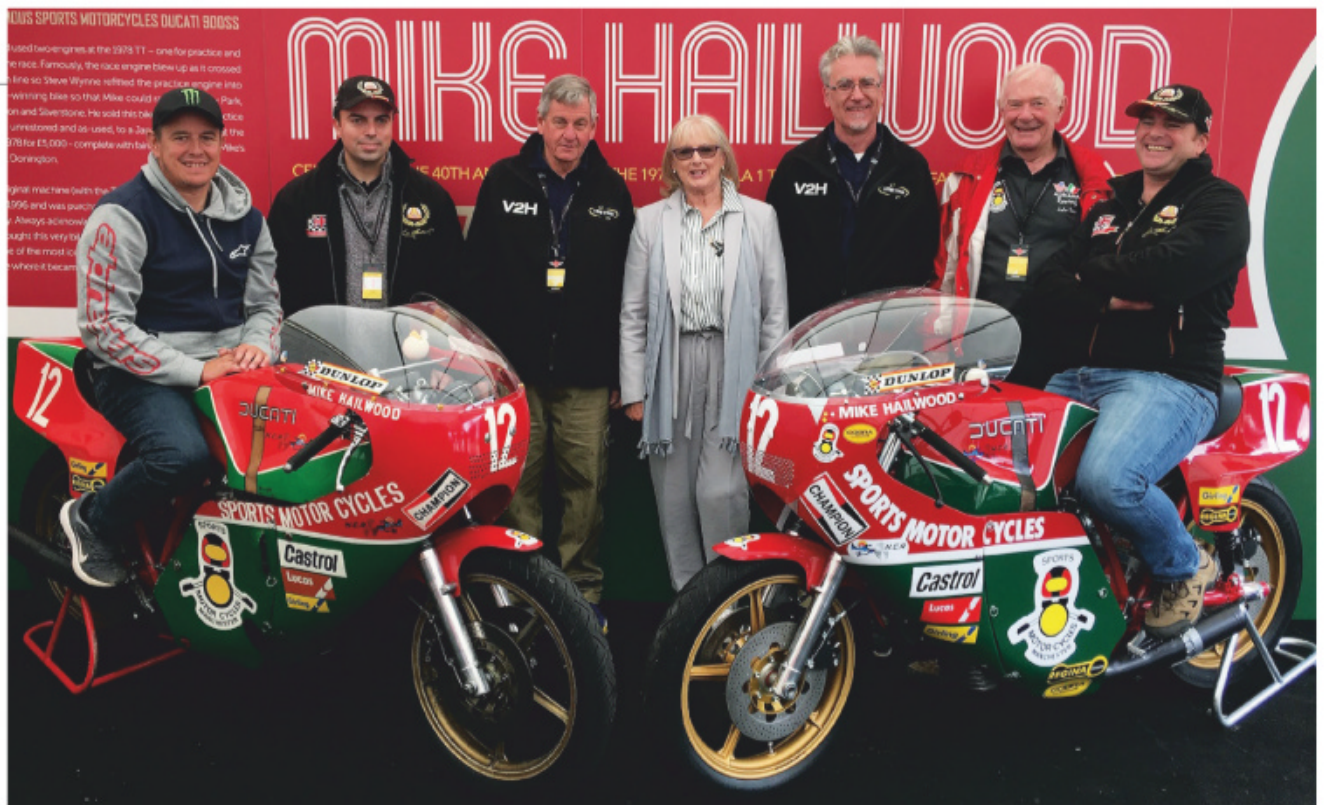
Those surprisingly steeply dropped clip-ons allow you to tuck elbows and shoulders well in behind the comparatively protective fairing — a key asset on the TT Course. The riding position is quite individual by Ducati bevel-drive standards,



The Hailwood rep is powered by Vee Two's 905cc Ritorno engine.



John McGuinness sits on the original bike (at left) and Mike Hailwood's son, David, sits on the rep at its 2018 Isle of Man Classic TT launch. Hailwood's widow, Pauline, is at center and Vee Two's Brook Henry to her right.



because Hailwood opted for a fat back pad that pushes you forward a little and wedges you in place to offset the inherent 48/52-percent rearwards weight bias of the air-cooled, 90-degree V-twin, using the rider's weight to compensate. Maintaining turn speed was a key aspect of Hailwood's riding style, so he needed to have the front wheel weighted up as much as feasible to achieve this — a vital aspect of TT success. The footrests feel lower and a little farther back than usual, a testament to Hailwood's crash at the Nurburgring in 1974, which ended his F1 car racing career, causing permanent damage to his right leg and foot. This meant that after a classical career of right-foot shifting, for his TT comeback race he had to learn how to use a left-foot, one-up race-pattern gear change, here neatly installed via a linkage through the swingarm pivot shaft, just as on the original bike.

The Vee Two copy of the TT-winning Ducati's engine has a muscular, meaty power delivery down low, even with the high-lift cams fitted, driving crisply and cleanly out of Barber's slower turns from very low revs, with no transmission snatch or hesitation. It's as smooth and tractable as a road bike down low, which means it takes time to build revs from a closed throttle, coming alive at 4,000rpm when the exhaust note hardens, engine acceleration picks up, and it pulls smooth and strong to the 9,200rpm agreed limit for the Vee Two engine. I used only the bottom four gears of the Vee Two 5-speed gearbox at Barber on the TT gearing fitted, but found the gear change pretty slow, even by bevel-drive standards. But this slugger of an engine is happy to have you ride the torque curve rather than constantly work the gearshift to keep the engine revving. Really, any gear you throw at this engine

is the right one, and you really don't need to work the gearbox as hard as you'd expect.

A key asset for Hailwood must have been the way the Ducati braked, compared to the heavier fours of four decades ago. The Italian bike's cast iron Brembo discs and two-pot black calipers were the benchmark stoppers back in 1978, and while you must squeeze the lever pretty hard by modern standards to make them work, they do stop the bike pretty well on their own. However, add in the ingredient of desmo engine braking, and now you have the potential to out-brake more modern Vintage Superbikes into a tight bend like the Barber Turn 5 horseshoe, all without the concern of possibly tangling a valve, thanks to Ducati's trademark positive valve operation. Just remember never to use the hefty rear disc, and get ready to fan the clutch lever with your left hand to avoid locking the rear wheel on the overrun — no slipper clutches in those days!

My chance to ride the Vee Two Hailwood Replica after previously riding the bike it's based on confirmed it to be a genuinely authentic clone of the Real Thing. Brook Henry and Paul Taylor deserve great credit for so painstakingly constructing this two-wheeled work of mechanical art. As a tribute to the man whom many still regard as the ultimate GOAT — as in Greatest of all Time — they don't come better than this. **MC**





# HELL-RAISER

1956 Harley-Davidson KHK







Story by Margie Siegal  
Photos by Nick Cedar

Harley-Davidson's KHK 883cc V-twin is very much a child of the 1950s — but not the 1950s of Grade A milk, manicured lawns and Doris Day.

We might like to think of the era as squeaky clean, but there was another side to the 1950s and it included illegal drag racing, Chicago blues clubs, rock 'n' rollers like Eddie Cochran and the young Elvis Presley, and the street gangs immortalized in *West Side Story*. The KHK was a good match for the rebels and misfits of the conformist 1950s. Loud and fast, and just the sort of thing the Leader of the Pack would want to ride.

Elvis actually bought a KH, the lower horsepower version of the KHK, in 1956, and was photographed riding it for the cover of *The Enthusiast*, Harley-Davidson's in-house magazine for its riders. Elvis had just had his first major hit, *Heartbreak Hotel*, and later that year, he appeared on *The Ed Sullivan Show*, the camera only showing him from the waist up, since the Whole Elvis was too sexy for TV. Just like the KHK.

### The British invasion

The KHK story starts shortly after World War II. Before the war, England had an extensive motorcycle industry, with most British motorcycle companies making large numbers of inexpensive motorcycles for the get-to-work crowd, along with a few high-end sporty bikes for riders who could afford them.

Civilian motorcycle production was suspended for the duration of World War II. After the war, British manufacturers had to guarantee that 75 percent of their production would be sent overseas. England was crushed by war debt and had to export most of its manufactured goods to pay it off. As a result, most of the larger British motorcycle manufacturers set up dealer networks in the U.S. and started producing larger numbers of their top-of-the-line bikes for export. This push received a boost after Indian's failed attempt to remake itself as a manufacturer of lightweight motorcycles in the British mode with a new line of vertical singles and twins that, unfortunately, suffered from major design flaws and serious quality control issues. Making matters worse, in the midst of all of this England devalued the pound, making British motorcycles cheaper than American-made Indians. Ironically, Indian ended





## 1956 HARLEY-DAVIDSON KHK

**Engine:** 54.2ci (883cc) air-cooled sidevalve 45-degree V-twin, 2.75in x 4.56in (70mm x 116mm) bore and stroke, 8:1 compression ratio, 52hp @ 5,500rpm (claimed)

**Top speed:** 105mph (est.)

**Carburetion:** Single Linkert M-53A1

**Transmission:** 4-speed, chain final drive

**Electrics:** 6v, coil and breaker points ignition

**Frame/wheelbase:** Dual downtube cradle frame/56.5in (1,435mm)

**Suspension:** Telescopic fork front, dual shocks w/ adjustable preload rear

**Brakes:** 8in (203.2mm) SLS drum front and rear

**Tires:** 3.5 x 18in front and rear

**Weight (dry):** 440lb (200kg)

**Seat height:** 32in (813mm)

**Fuel capacity/MPG:** 4.5gal (17ltr)/40-45mpg (est.)

**Price then/now:** \$1,003/\$6,000-\$18,000



The K line was Harley-Davidson's response to the British onslaught of the 1950s.

17,168 Harleys sold. Harley's future didn't look bright.

up becoming a major importer of British motorcycles and many Indian dealers started selling British motorcycles.

At first, Harley-Davidson ignored the flood of Triumphs, BSAs and Nortons pouring onto U.S. roads. In the late 1940s, Harley was manufacturing 61- and 74-cubic-inch overhead valve V-twins, 45-inch sidevalve V-twins and 125cc 2-strokes — which, incidentally, were very popular. The big overhead valve twins were heavy touring machines with long wheelbases. The flathead 45s were slow utility bikes. Both had tank shifters and foot clutches. The new imports were light, with high revving overhead valve engines, foot shifters and hand clutches. They were

easier to ride and handled well.

Eventually, Harley became alarmed at the number of British machines on the road. Its concern probably had a lot to do with slowing sales. World War II veterans were getting married, moving to a house with a white picket fence and trading in the bike for a washing machine. While 29,612 Harleys were sold in 1948, that number dropped to 23,861 in 1949 and plummeted further in 1950, with only

### Resist or compete

Harley-Davidson first tried asking the U.S. Government to raise tariffs on British two-wheelers. In September, 1951, hearings were held before the United States Tariff Commission, and they didn't go well for Harley. Believing that the Commission was going to deny the request (which they did in June 1952), Harley-Davidson went to Plan B — if you can't fight them, join them. Still awaiting the







commission's final decision, Harley announced a midsize, sporting machine to compete with the British bikes.

Introduced for the 1952 model year, Harley's new midsize sport bike was named the K model. It was mostly a very up-to-date machine, with a left hand clutch and right foot shift, like the imports. It had telescopic forks and swingarm suspension at a time when some British motorcycles, notably Triumph, still had rigid rear ends. The engine was built in unit with the transmission and clutch, and the cylinder heads were aluminum. But it was, oddly, still a sidevalve flathead, just like the W model 45-cubic-inch machines that had preceded it, but with a 6.5:1 compression ratio versus the older bikes' standard 4.75:1.

There were probably many reasons why Harley gave the K model a sidevalve top end. Although no records are available from Harley to answer this question, it's likely that Harley's slowing sales resulted in belt tightening in the engineering department. Further, management probably still had vivid memories of the disastrous 1929 introduction of its flathead V model twins, and did not want to chance a repeat.

When the K model appeared in late 1951, it made 30 horsepower, weighed 400 pounds, and was good for about 80mph. The overhead valve 650cc Triumph Thunderbird made 34 horses, weighed 385 pounds and was good for over 90mph. A few road-going KR's, dubbed KK, were manufactured, and

they could run right up there with the best of the imports, but there were so few of these that they were not even listed on the Harley order blank.

The K model was likely intended as a stopgap measure while a sporty overhead valve middleweight was developed, which finally came with the 1957 Sportster. Possibly (I have not seen any official documentation on this question) the overhead valve cylinder head was taking longer to develop than anticipated, but whatever the case, something had to

be done to up the power of the existing K models. They were good bikes — just slow, and slow bikes didn't sell.

The racing version of the K model, the KR, was however very fast and a successful contender in American racing for years. It had ball bearing main bearings instead of the roller bearings used on the K model, better breathing and other modifications, and weighed a lot less. Even so, it is a lot easier to get speed and power out of an overhead valve engine, which all the Brit bikes had.



The design of the KHK's headlamp nacelle echoed that of its big brother, the FLH.

### Bigger is better

"There's no substitute for cubic inches" was the speed mantra in the 1950s. Stroking engines — changing their displacement by changing their stroke — was popular among hot rodders and drag racers, so in 1954 Harley stroked the K, increasing capacity from 45 to 54 cubic inches (or 883cc, a displacement shared by base Sportsters ever since), while also putting in bigger intake valves and improving the porting. This bumped output from 30 to a claimed 38 horsepower. All of this was standard issue speed work for the time, and it did make the bike (now named the KH) faster. *Cycle* magazine took a KH to the drag strip and clocked it through the quarter-mile at 14.75 seconds. Top speed was 95mph. Unfortunately, dry weight was now 440 pounds.

The KH was not a best-seller. Harley dealers managed to sell 1,579 of them in 1954. The little Hummer 125 single





The KHK's flathead V-twin produced a claimed 52 horsepower from 883cc thanks to special cams and porting.

actually sold better. The next year, Harley engineers came up with the fastest road version of the K model yet: the KHK. The KHK had the same displacement as the KH, but was treated to more aggressive cams that were close to the 1953 KR factory racing cams, more extensive porting work with polished ports, and KR valve springs. Output was a claimed 52 horsepower, and rumor had it that Harley's race department was involved in building KHKs, or at least provided some of the special parts, rumors that may have been sparked by period ads. "A special model like the KHK is not produced in the normal channels of production. To get that extra horsepower takes time and loving care. The quantities, that can be produced, are rather limited and sufficient time must be allowed to fill orders," stated one ad, urging potential buyers to get their orders in early.

The KH and KHK lasted only until 1957, when the sporty overhead that Harley had needed to sell since the late Forties finally saw the light of day. Strangely, the 1957 XL and XLH Sportsters (H = higher compression) looked like junior Panheads. As a result of pressure from West Coast dealers, in 1958 Harley started building the XLCH, a version of the Sportster that looked like a flat tracker. Sales took off and never looked back.

All K models are rare, but KHKs are the rarest of the rare: 449 were built in 1955 and 714 in 1956. Not letting that fact get in the way of a good thing, shady shade tree mechanics have for years been converting plain Jane K models and KHs to KHK specs and altering the factory stamp on the engine to match. Buyer beware.

### Craig Horner's KHK

The bike shown here is an authenticated 1956 KHK. "It was built the year I was born," says owner Craig Horner, who has been a motorcycle enthusiast since childhood. "Working on bikes came naturally to me. My parents had a Benelli, and I helped my father work on his dune buggies." Craig got bit by the old bike bug 25 years ago, when he started going to the Mid-America auctions. "I'm not interested in later stuff at all. I go for bikes from the Teens up to the Forties

and some Fifties stuff. I like to work on early American bikes, and I've bought and sold several early Teens Indians. It's a hobby."

Craig purchased the KHK on eBay in 2008. Believe it or not, the paint and most of the components are unrestored. "I realized from the photos that it was really close to the original. One item that I wasn't sure about was the yellow stripe. It was painted on top of the black main color, which I thought was a little odd, but I researched it and found



Owner Craig Horner on his 1956 KHK, which is mostly original and unrestored.



# Bonhams

AUCTIONEERS SINCE 1793

ENTRIES NOW INVITED | *CONSIGN TODAY*



**1926 BROUGH SUPERIOR 981CC SS100**  
**'ALPINE GRAND SPORTS'**  
£140,000 - 180,000 \*



**1925 COVENTRY EAGLE 980CC FLYING-8 OHV**  
£100,000 - 120,000 \*



## The Spring Stafford Sale

Important Collectors' Motorcycles, Related Spares and Memorabilia

The International Classic MotorCycle Show, Stafford | 27 & 28 April 2019

### TWO-DAY AUCTION, OVER 400 LOTS

#### COMPLIMENTARY AUCTION APPRAISAL

To discuss any aspect of selling or buying collectors motorcycles at auction, please contact your nearest specialist, the London office or visit [bonhams.com/motorcycles](http://bonhams.com/motorcycles) to submit a complimentary auction appraisal request.

### ENQUIRIES

#### UK

+44 (0) 20 8963 2817  
[ukmotorcycles@bonhams.com](mailto:ukmotorcycles@bonhams.com)

#### USA

+1 323 436 5470  
[usmotorcycles@bonhams.com](mailto:usmotorcycles@bonhams.com)  
[bonhams.com/springstafford](http://bonhams.com/springstafford)

### THE SANT HILARI COLLECTION

Over 100 Important MX and Enduro Motorcycles

**TO BE OFFERED ENTIRELY WITHOUT RESERVE**

### Network of Specialists

Lancs, Yorks, N. Midlands,  
N. Counties & Scotland  
+44 (0) 1457 872 788  
[mark.garside@bonhams.com](mailto:mark.garside@bonhams.com)

Lancashire  
+44 (0) 1204 491 737  
[alan.whitehead@bonhams.com](mailto:alan.whitehead@bonhams.com)

Shropshire, Glos & Wales  
+44 (0) 1299 270 642  
[jim.reynolds@bonhams.com](mailto:jim.reynolds@bonhams.com)

Lincs & East Anglia  
+44 (0) 1507 481 890  
[david.hawtin@bonhams.com](mailto:david.hawtin@bonhams.com)

Herts, Beds, Bucks, Oxon & S. Midlands  
+44 (0) 1494 758 838  
[martin.heckscher@bonhams.com](mailto:martin.heckscher@bonhams.com)

Home Counties  
+44 (0) 127 629 413  
[david.hancock@bonhams.com](mailto:david.hancock@bonhams.com)

Home Counties  
+44 (0) 20 8302 7627  
[colin.seeley@bonhams.com](mailto:colin.seeley@bonhams.com)

Hampshire & Dorset  
+44 (0) 1794 518 433  
[mike.jackson@bonhams.com](mailto:mike.jackson@bonhams.com)

Wiltshire, Somerset & Devon  
+44 (0) 1380 816 493  
[greg.pullen@bonhams.com](mailto:greg.pullen@bonhams.com)

Devon, Cornwall & Somerset  
+44 (0) 1872 250 170  
[jonathan.vickers@bonhams.com](mailto:jonathan.vickers@bonhams.com)

Bonhams Co-Chairman  
+44 (0) 20 7468 8238  
[malcolm.barber@bonhams.com](mailto:malcolm.barber@bonhams.com)

\* For details of the charges payable in addition to the final hammer price, please visit [bonhams.com/buyersguide](http://bonhams.com/buyersguide)





that was the way the factory painted the tanks," Craig says. "It was running when I bought it, but the wheel spokes were chrome plated, which was incorrect, and someone had shrink wrapped the wiring. To restore the bike to the original condition, I had to very carefully remove the shrink wrap." The wiring harness was original and in good shape except for the shrink wrap. Sportster expert Dave Carleton helped Craig find authentic-looking cables. The bike has been judged under Antique Motorcycle Club of America rules and been found to be mostly correct, with a few minor issues that Craig corrected before the photos for

this article were taken.

Perhaps surprisingly given its rarity, Craig does occasionally ride the KHK. "Shifting on the right side was a challenge for me," says Craig, who like many riders is more used to "standard" left-shift machines. "I worked at it until I got comfortable on the road. It helped that several of my friends ride bikes with right side shift. Really, I prefer shifting on the left.

"The KHK is tough to kick over, but once I get it going and warmed up, it pulls from zero rpm. You do have to let the bike warm up, but once it is warm, it rolls out. The brakes are good. Brakes

A promotional pamphlet for the 1956 KH and KHK touted the model as the "No. 1 motorcycle in the Nation," a boast not supported by combined sales of only 1,253 bikes.

are one of the first things I check when I get a bike, and they were sound. I put new cables on everything, however, just to make sure. I am adamant about the safety of my bikes."

Craig says the KHK takes premium gas and he uses multi-grade 15/40 or 15/50 oil. Some restoration experts think Fifties bikes will leak if you use multi-grade oil, but Craig says he has had no problem. If the bike will be sitting for a few months, Craig will drain the oil from the sump, but notes that "if you run it all the time, you don't have to drain it." There is an oil filter in the oil tank, and Craig has added an in-line fuel filter, which he removes when he is showing the KHK. "So far I have not had any trouble with the Linkert carburetor, but from previous experience, no fuel filter means a clogged Linkert."

The KHK was the closest road machine to Harley's racer, the KR that ruled the tracks in the 1950s. "I like the look of Harley flatheads," Craig says, obviously fond of his Fifties hell-raiser. "This one is special. It's the last year — and it has that high compression engine." A non-conformist if ever there was one. **MC**







Progressive Casualty Ins. Co. & affiliates. Annual premium for a basic liability policy not available all states. Prices vary based on how you buy.

**A bad day on the road  
still beats a good one off it.**

Stay out there with basic liability  
insurance starting at \$75 a year.  
Add roadside assistance for less  
than \$1 a month.

***PROGRESSIVE***

1.800.PROGRESSIVE | PROGRESSIVE.COM

Dramatization. Always wear protective eyewear.



# MYSTERY SHIP

## Craig Vetter's way-out Kawasaki

Story by Margie Siegal

Photos by Nick Cedar

Next to Willie G. Davidson, Craig Vetter is the American most responsible for motorcycle design in the last 40 years. He started on his life path very early. At the age of 8, he learned about Glenn Curtiss, the early speed record-setter and motorcycle and airplane designer. He decided then that he would be a second Glenn Curtiss, a designer and racer.

Now in his 70s, Vetter is involved in several different projects, most currently focused on electric motorcycles. He is also writing his memoirs, aided by several shelves of notebooks. Since 1965, Vetter has written and sketched his ideas in notebooks, which serve as an archive of his projects. Vetter often has several projects going at once, and is now up to 121 filled notebooks.

Vetter has always been interested in streamlining, and started on his career in 1966 by designing motorcycle fairings. In 1968, Vetter displayed a bike with what he called a "seat tank," a one-piece fiberglass unit that served as a 5-gallon gas tank, a reservoir for 2-stroke oil, and a seat pan. This design came to the attention of the American BSA importer, who commissioned Vetter to design a more appealing styling for the new BSA Rocket 3, a fast bike with a stodgy exterior penned by Ogle Design. The Vetter Hurricane was unveiled in 1970 and was ultimately produced as the Triumph Hurricane in 1972-1973. As testimony to its influence, a Hurricane was one of the featured bikes in the famous Guggenheim Art of the Motorcycle exhibit.

Meanwhile, Vetter was busy designing his Windjammer Fairing — an aerodynamic fairing that would fit any bike then produced. Mass marketed in late 1972, the Windjammer was a hit, and thousands were sold. The profits from the company funded Vetter's racing effort and, after he crashed and was seriously injured, a race team sponsoring Reg Pridmore, who won the 1978 Superbike Championship on a Vetter-prepared Kawasaki.

The market for Windjammer fairings started drying up when motorcycle factories started producing bikes with their own integrated fairings, and at any rate, Vetter wanted to work on some new and different projects. He sold the Vetter Corporation, the parent company for Windjammers, at the











## 1980 VETTER MYSTERY SHIP NO. 3

**Engine:** 1,015cc air-cooled DOHC inline four, 69.4mm x 66mm bore and stroke, 8.7:1 compression ratio, 93hp @ 8,000rpm

**Top speed:** NA

**Carburetion:** Four 29mm Mikuni CV

**Transmission:** 5-speed, chain final drive

**Electrics:** 12v, coil and breaker points ignition

**Frame/wheelbase:** Dual downtube steel cradle/62in (1,575mm)

**Suspension:** Telescopic fork front, dual S&W "lay down" shocks w/adjustable preload rear

**Brakes:** Dual 9.4in (240mm) discs front, single 9.8in (250mm) disc rear

**Tires:** 3.5 x 19in front, 4.5 x 17in rear

**Weight (dry):** 495lb (225kg)

**Seat height:** 32in (813mm)

**Fuel capacity:** 6gal (22.7ltr)

end of 1978, giving him the money and time to work on his next idea, a custom motorcycle design.

### Mystery Ship origins

The story goes that in the late 1920s, aviation designers Herb Rawdon and Walter Burnham wanted to prove that a civilian aircraft built from scratch and designed exclusively for racing (as opposed to combat or passenger/mail service) could outfly a military airplane, so they built one. Under construction during 1928, the aircraft was kept under cover prior to the 1929 Cleveland Air Races, the builders going so far as painting the windows of the Beechcraft factory where it was built to keep curious press from getting a look at it. The local Wichita, Kansas, paper picked up on the secret program, with one reporter going so far as to scale a ladder to try to peek into the vents



The partial fairing hides the top end of the Kawasaki KZ1000 inline 4-cylinder engine.

in the factory roof. The paper dubbed it the "Mystery Ship," and the name stuck.

Craig Vetter heard this story, was captivated, and named his new custom motorcycle the Mystery Ship. "I wanted to do my own ultimate motorcycle," Vetter explains. "I decided that a Kawasaki would be the best stock motorcycle for me to hop up. It had no known bad qualities." At first, Vetter

intended to use a Rickman frame, as along with everything else he was doing, Vetter had become the Rickman frame distributor for North America. A KZ1000 was to provide the power.

Kawasaki's KZ1000 was a development of the Z1 launched in 1972. Sporting a double overhead camshaft inline 4-cylinder engine and a 5-speed transmission, by 1980 it produced about







93 horsepower and was one of the fastest motorcycles of the era. The Z1 was known for its brute horsepower and sometimes-imperfect handling; the KZ was smoother, had a beefed-up lower end, and handled better. Some riders complained that it was actually too civilized. Originally equipped with breaker-point ignition and a bank of four carburetors, it was upgraded to fuel injection and electronic ignition during the model run. It was replaced in 1984 by the liquid-cooled GPz.

The KZ sported a smooth, air-cooled, 4-cylinder engine, with an over-square bore and stroke of 69.4mm x 66mm. A lowish compression ratio of 8.7:1 allowed it to run on the less than optimum gasoline of the late 1970s. Carburetion was by four 29mm Mikunis, and the brakes were discs, front and rear. In 1980, the front stoppers were upgraded to double discs. It was a good, reliable machine, but a bit heavy with a dry weight of just more than 542 pounds. Even so, the KZ1000 was the basis of many Superbike contenders of the era, including the Vetter-sponsored Reg Pridmore effort. In stock trim it would do the quarter-mile in 12.5 seconds.

Eventually, Vetter decided to use the KZ's own double cradle frame, but made some modifications, including removing frame tabs that wouldn't be needed on the Vetter bike. "The plan was to produce a bike with the thinking and feeling that went into a race winner," Vetter explains.

"The frame mods were done by Sandy Kosman of Kosman Racing, a dear friend. The aim was to build a legitimate, serious racing frame, good enough for Reg Pridmore." The problem, of course, was that a street legal machine needs to have numerous bits like lights, etc., that are unnecessary on a racer. Vetter's



The fairing was built around the KZ1000's double cradle frame, with a few mods.



The Mystery Ship wears mag wheels and dual 9.4-inch disc brakes at the front, providing acceptable stopping power for the time (right).



plan was to surmount this problem by lightening components where possible and relying on streamlining to overcome the extra weight.

Kawasaki was aware of Vetter's project. "Kawasaki liked the idea and sold us bikes at good prices, but didn't actually fund the project," Vetter says. The R&D for the project was finished in 1980. Vetter added up the costs of the Mystery Ship and came up with the then-shockingly high price of \$10,000 per bike. The production costs were more than that, but he figured that \$10,000 was the absolute limit of what anyone would pay. Vetter built the first Mystery Ship for himself, to use as advertising. He first painted the bodywork black, then decided he didn't like it and burned the fiberglass. "I figured I couldn't sell more than 100 due to the high price," Vetter remembers. "I sold 10 right away. The customer could get any engine modifications they wanted, and I would install them in the frame. One customer wanted a turbo. Mystery Ship No. 2 was Stage 3 modified by Yoshimura and scary to ride." Each Mystery Ship had a racing number plate formed into the side with that bike's production number.

At this point, Vetter's life took another turn. He was flying ultralight aircraft as a hobby, and crashed. "It took me out of life for a while," he says. While recuperating, Vetter became interested in wheelchair design, and started a performance wheelchair company. The Mystery Ship project fell by the wayside.

### Mystery Ship No. 3

Alan Smith saw a Mystery Ship in 1980. "I thought it was the coolest bike made. I wanted one. I collected articles about it, and then I found out Vetter only made 10. I wrote the idea off."

Smith is an eclectic collector who also likes to ride. Like many people, he started riding dirt bikes, but after crashing a few times, "I decided dirt riding wasn't for me," he says. He then got involved in the antique bike movement, and has been collecting since 1980. "My collecting really took off when I got a house, which gave me room to store bikes." Many collectors specialize in one type of motorcycle — it makes it easier how to learn to foil the quirks that all classic bikes exhibit. But Smith likes all kinds of bikes for all sorts of reasons. "I like differences. I am interested in the different ways engineers solved similar problems."

Thirty years after Smith first saw the

Mystery Ship, he met Vetter at Vintage Motorcycle Days in Ohio, and discovered they lived within a day's ride of each other. As it turned out, Smith was skilled in forming fiberglass, and he and Vetter started doing streamliner projects together. Smith thought about making his own Mystery Ship, but then learned that Vetter had destroyed the molds. "He does this after every project, so that no one can reproduce his designs," Smith says.

Meanwhile, Mystery Ship No. 3 was traveling around the country. Shortly after it was built in 1980, No. 3 was raffled off as a prize in a contest. It ended up with Malcom Forbes, who kept it for a while, eventually selling it to someone who also kept it for a while, who, as these things go, then decided to sell it. And Smith heard through the old bike grapevine that No. 3 was for sale. "Mystery Ships rarely come up for sale," Smith notes. "This one came up unexpectedly. It wasn't running, and someone had started working on it, but gave up in the middle of the project. Whoever it was had stripped screw threads and set the floats at different levels. There were carburetor parts laying inside the carburetors. The brakes also needed work, and my mechanic, Jesse Marshall, and I found out that KZ parts were not as available as we had expected, so I had to search for parts."



Alan Smith enjoys riding his Mystery Ship on the back roads of California.



# YOUR **TRUSTED** ONE-STOP SOURCE FOR PARTS **AND** **ACCESSORIES**

DELIVERED TO YOUR DOOR FOR **50 YEARS** AND COUNTING

50 YEARS

**DK DENNIS KIRK**  
WE SHIP TODAY

## HUGE INVENTORY



## HUGE TIRE SELECTION



NEED A PLACE TO SHOW OFF YOUR BIKE?

OUTSTANDING  
CUSTOMER SERVICE

**BIZRATE**  
SCORE OF  
9.4 OUT OF 10

**FREE  
SHIPPING**

ON ORDERS  
OVER \$89 TO THE  
LOWER 48 STATES

**RISK-FREE  
SHOPPING**

FREE RETURNS  
ON HELMETS  
& APPAREL

**SAME DAY  
SHIPPING**

ON ORDERS  
PLACED BEFORE  
8PM CST



**GARAGEBUILD.COM**

SUBMIT YOUR BUILD, RATE YOUR  
FAVORITES, ENTER TO WIN PRIZES

**denniskirk.com • 800-970-3819**  
M-F 7am-8pm CST SAT-SUN 7am-6pm CST



“This Mystery Ship is the only one of the 10 built that still sees the road.”

Smith sent the bank of four carburetors to specialist Jack Wagner in San Jose, California. The damaged parts weren't repairable, so Wagner replaced them. “He wanted to polish the carburetors,” Smith says. “Kawasaki never polished carburetors, and they would be hidden by the bodywork. I had to point out that no one would see them.”

The engine in Mystery Ship No. 3 is pretty much stock, and Smith likes it that way. “The engine was not modified. I think it's better for what is now an antique motorcycle to have a stock engine. For one thing, if the motorcycle is judged in a concours show, the engine is expected to be stock. For another, it makes it easier to get parts.”

This Mystery Ship is the only one of the 10 built that still sees the road. Some of the others were never started and are still in “as new” condition. Even so, Smith is cautious about riding his, as the tires are 20 years old, a situation he plans to correct shortly. “I'm looking at Michelin tires; I think they will be right for this bike.”

His impressions of the bike are good. “The Mystery Ship has a very torquey engine. It pulls from 3,000rpm, but the powerband really comes on at 4,000rpm and redline is about 8,000rpm. It feels heavy on the sidestand, but lightens up once you get going. It feels good going into corners, although the bodywork hits me in the shins sliding sideways on the seat. The single piston brakes feel heavy — like I'm riding my Harley. You have to show the bike who is boss. Vetter tried to lighten up the bike when he was designing it. He added mag wheels, replaced the steel fenders with fiberglass, and cut tabs off. The Mystery Ship bodywork is lighter than the stock bodywork, except the 6-gallon gas tank, which weighs quite a bit.

“The Mystery Ship is something that I wanted for over 30 years, and I have been happy with it,” Smith explains. “I like things that are different. I don't like things that disappear into the background.” Styled unlike any other motorcycle ever made, that's one thing a Vetter Mystery Ship will certainly never do. **MC**





# WILLOW SPRINGS

America's Original Road Racing Circuit

PRESENTS THE 24TH ANNUAL

## CORSA MOTOCLASSICA

BIKE SHOW AND MOTORCYCLE SWAP MEET



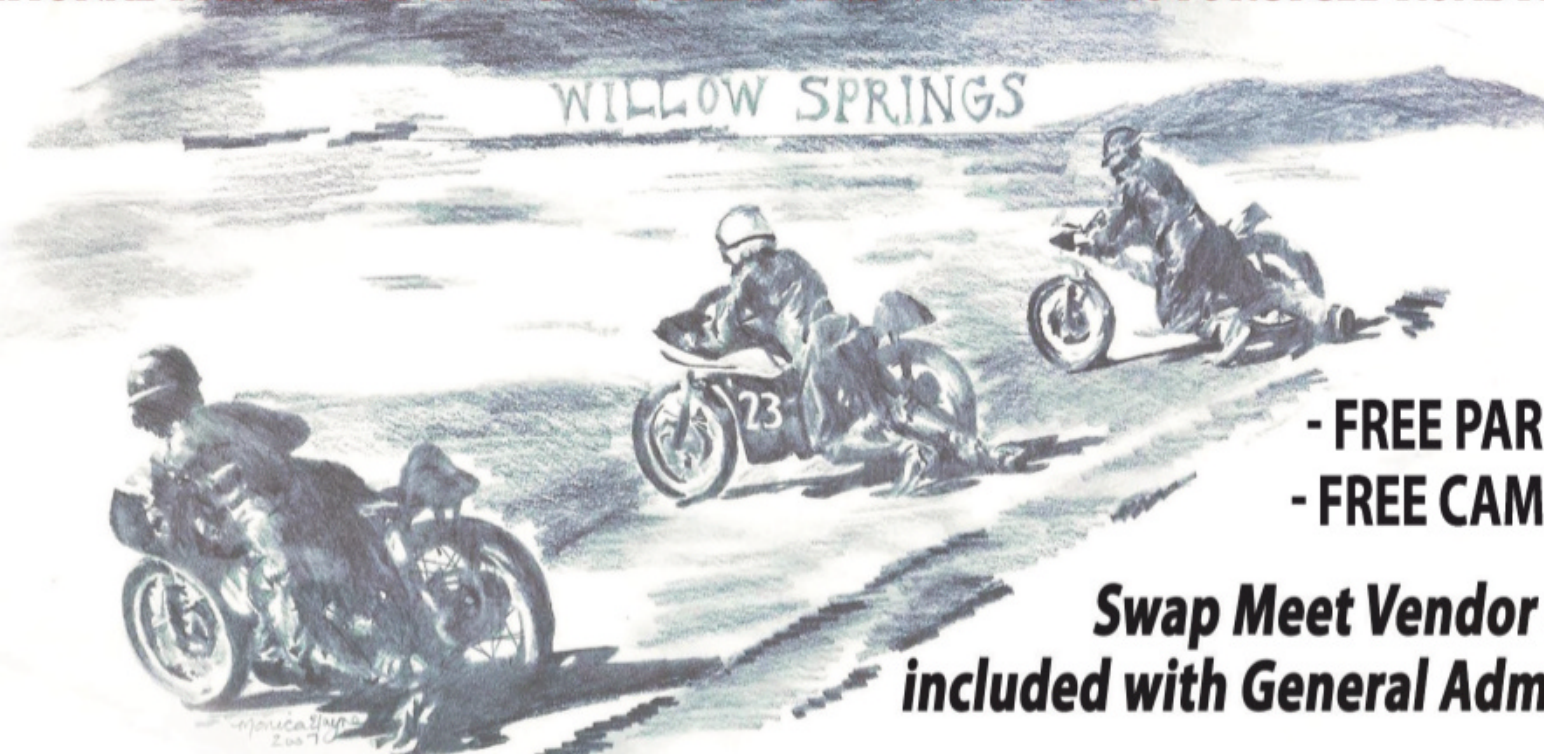
FEATURING THE 2019 CPL SYSTEMS

## HISTORIC CUP



## NATIONAL ROADRACE SERIES

THE NATIONAL PREMIERE EVENT OF MODERN AND VINTAGE MOTORCYCLE ROADRACING



- FREE PARKING -  
- FREE CAMPING -

*Swap Meet Vendor Space  
included with General Admission*

WITH TRACK XPERIENCE TRACK DAYS, TOTAL CONTROL AND MORE

**GENERAL ADMISSION:**

**\$15 / day - \$25 / 2 days**

**or ALL 3 DAYS for \$30**

Children 8 years & Under FREE

Gates open 7am to 11pm daily

**APRIL 26-27-28**

**WILLOW SPRINGS**  
MOTORSPORTS PARK

3500 75th St. West, Rosamond, CA. 93560

**661-256-6666**

[willowspringsraceway.com](http://willowspringsraceway.com)



**Fast & Safe Roadracing School**

Pass the class. Race the weekend



OFFICIAL FUELS







# PURE MADNESS

## 1914 Militaire

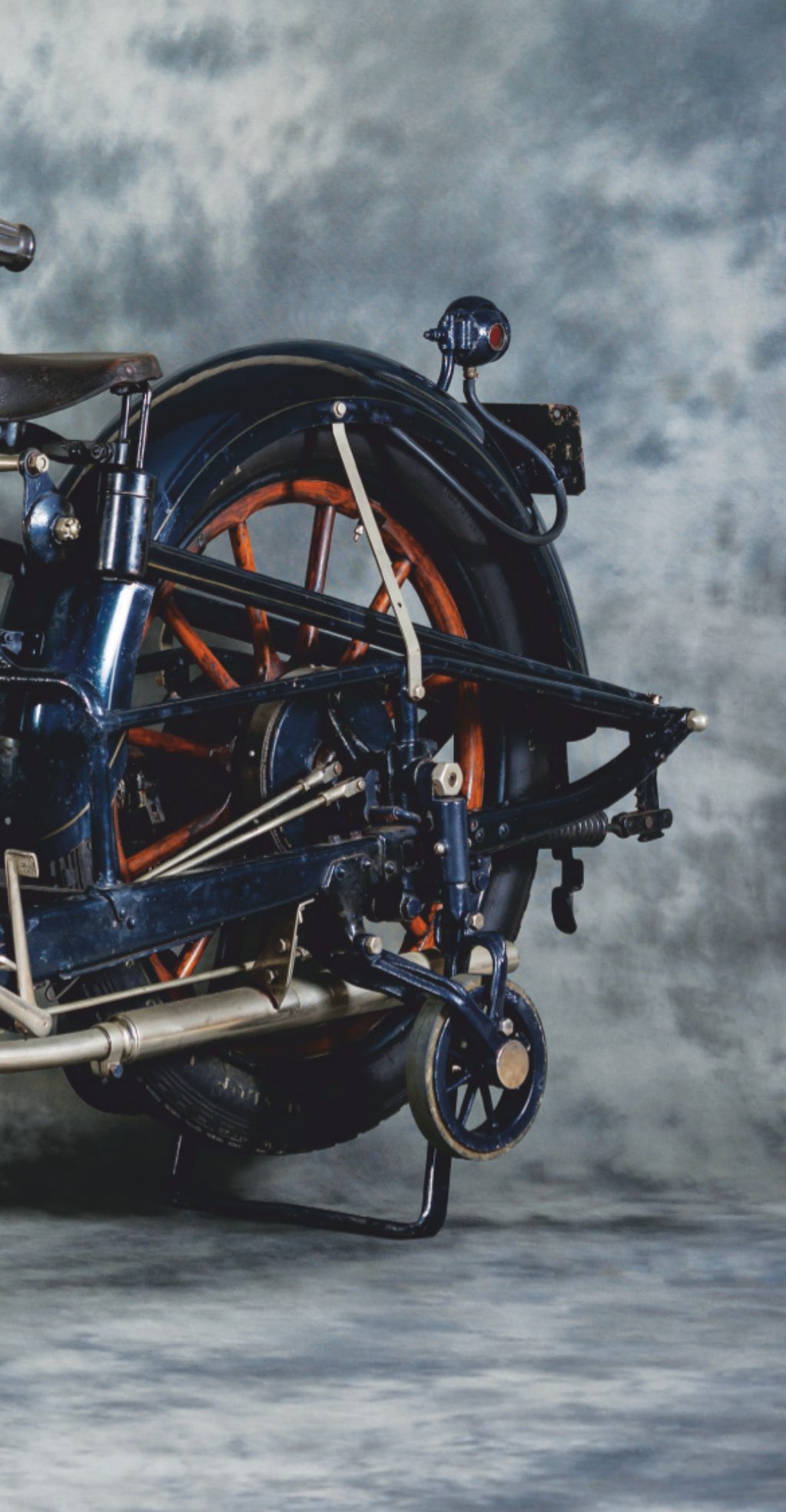
Story by Hamish Cooper  
Photos by Phil Aynsley

Is it a motorcycle? Is it a car? Is it a Militaire or Militor? We crack a cold case that spans a war and five bankruptcies.

Motorcycling's history involves so many myths and legends. Militaire, which spans the years 1910 to 1922, is a classic case of both. It is a myth that the Militaire was designed purely to meet America's World War I demand for a battlefield motorcycle. But it created a minor legend by trying (unsuccessfully) to mate the virtues of both two- and four-wheeled transportation.

In the pre-World War I era, there were literally dozens of motorcycle manufacturers in the U.S. But whereas many of them were simply bolting outsourced engines into their own





“Many historians refer to this motorcycle as having ‘hub-center steering.’ It doesn’t.”

### Mystery man

Little is known about charismatic businessman Norman Sinclair, who is an integral part of this story. Some credit him with being the brains of the original operation. Others say he came in when the business first went bankrupt. Certainly, he skillfully pulled the strings in a project that would chew through another four investors.

The original design was licensed to The Champion Motor Car Co. in St Louis, Missouri, which sold it for a short time rebadged as a Champion. These were volatile times for the motor industry, and when Champion went bust soon after, Sinclair ended up with the rights and assets, setting up the Militaire Autocycle Co. in Buffalo, New York.

By now the Militor had been radically redesigned. As well as being renamed the Militaire Autocycle, it was now powered by a car-like, inline, 1,114cc 4-cylinder engine with the crankcase also acting as a stressed member of the frame.

In a time when most motorcycle engines ran a total-loss, drip-feed system, the Militaire had a gear-type oil pump. This pressure-fed oil from the crankcase reservoir to the main bearings, then through a tunnel in the crankshaft to the connecting rods.

The engine employed the then-popular inlet-over-exhaust configuration, sometimes called the “pocket valve” (which predated the flathead design). The intake valves were located in the cylinder head, with exhaust valves in the cylinder block.

The clutch and brakes were foot operated and the gearbox (three speeds forward and a reverse) was controlled by a hand lever in a car-like H-gate shift pattern. Final drive was by shaft and a differential. It didn’t have a “kickstarter,” but rather a “stepstarter,” a pedal at the rear of the running board that activated a set of linkages to the flywheel.

### Hub-center myth

Many historians refer to this motorcycle as having “hub-center steering.” It doesn’t. Steering was by a type of girder fork (with stiffening and leaf springs at the bottom) connected to an articulated steering neck through which the axle ran. The featured 1914 Militaire shows the front fork arrangement, with the girders part of the frame and the wheel pivoting through a curved axle. Company literature always described “a pivoted front axle (patented).”

Another unusual feature was the cantilever seat arrangement, whereby the entire rear subframe is basically a suspension system. Of course, the car-like, channel-steel chassis allied with this innovative approach to suspension had the side effect of creating a very heavy motorcycle. This 1914 model (No. 114) uses acetylene held in a pressurized tank for the lighting, but electric lights were fitted the following year.

Add in the artillery wheels and the complete package weighed over 770 pounds (350kg). However, the overall dimensions were no more excessive than the popular Henderson 4-cylinder motorcycle. The 11-1/2 horsepower engine could propel the Militaire Autocycle to about 30mph, pretty fast for the day.

frames, the various incarnations of Militor/Militaire/Militor made 80 percent of its product in-house. Quite an achievement.

The radical design was first displayed as a prototype in 1910 and put into production in Cleveland, Ohio, in 1911 with the name Militor. Over the next two decades, it was always marketed with a narrative extolling the fact it was a motorcycle with car-like qualities. The original version ran a single-cylinder, 480cc engine cooled with a fan. The drivetrain was a combination of shafts and chains, with a friction-drive setup at the back of the engine driving a chain and sprocket for the rear wheel. And instead of handlebars, the front forks were turned by a steering wheel!

The rider didn’t have to put his feet down at intersections because two small so-called “idler wheels” could be lowered by a pedal as the “autocycle” slowed. The effect was similar to today’s Piaggio’s MP3 scooter. The Militor pre-dated the similar and more commonly found Ner-A-Car by a decade and helped sum up an era that pushed the boundaries of innovation.





Although the Militaire is often described as having hub-center steering, it doesn't. Militaire literature describe it as a "pivoted front axle."

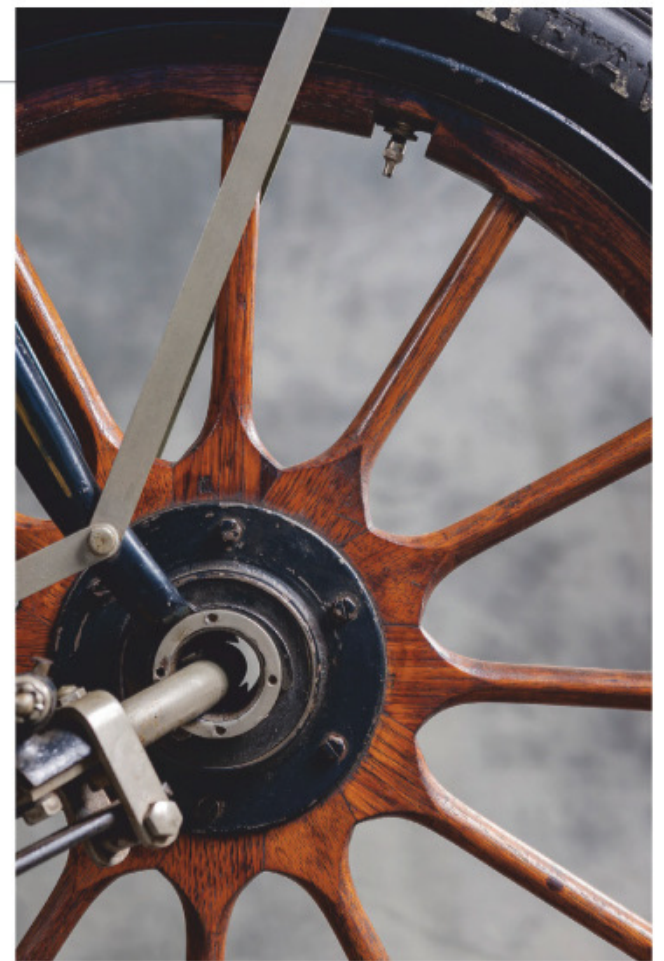
### Sales spiel

There was no holding back the confidence of the relaunched Militaire company in 1914, the year of the model featured here, which is on display in the National Motorcycle Museum in New South Wales, Australia. "The Militaire Autocycle is not an experiment," the sales brochure trumpeted. The brochure listed N.R. Sinclair as president of a company that claimed to have \$250,000 in capital.

"Model after model has been built, weaknesses located and eliminated one at a time until the machine is mechanically perfect," the brochure continued. "This process has been expensive but the result is a machine which will stand up as well and as long as the highest grade automobile." It was also claimed that the company was backed by "some of the wealthi-



**Engine:** 68ci (1,114cc) air-cooled IOE inline four, 2-11/16in x 3in bore and stroke, 11-1/2hp  
**Top speed:** 30-40mph (est.)  
**Carburetion:** Single Schebler updraft  
**Transmission:** 3-speed w/reverse, shaft final drive  
**Electrics:** Bosch magneto ignition  
**Frame/wheelbase:** Channel steel frame/65in (1,651mm)  
**Suspension:** Cantilever leaf spring front, adjustable cantilever coil-sprung seat rear  
**Brakes:** 7in (178mm) external/internal contracting/expanding drum rear  
**Tires:** 3in x 28in front and rear  
**Weight (dry/est.):** 770lb (350kg)  
**Seat height:** NA  
**Fuel capacity:** 3gal (11.4ltr)



est and most conservative businessmen and financiers in New York State."

But what of some of the wacky design features, such as wooden wheels, in a time when spoked wheels were a proven product? "The use of the artillery type of wood wheels for motorcycle purposes has proven their value," the firm stated, speaking of adopting them "only after the most severe and gruelling tests." "They are made of selected second-growth straight grain hickory," the firm added, making wood sound like some exotic material.

### Reality bites

Sales were slow. Some claim fewer than 200 Militaires were sold. But the company seemed undeterred, exporting to private buyers around the world. It was marketed at travelling salesmen and gentlemen "who own a large car and desire a light vehicle to get about at times quickly and economically."







Another sales target was “young men of refinement to whom formerly motorcycles never appealed ... no peddling or straddling with feet on the ground.”

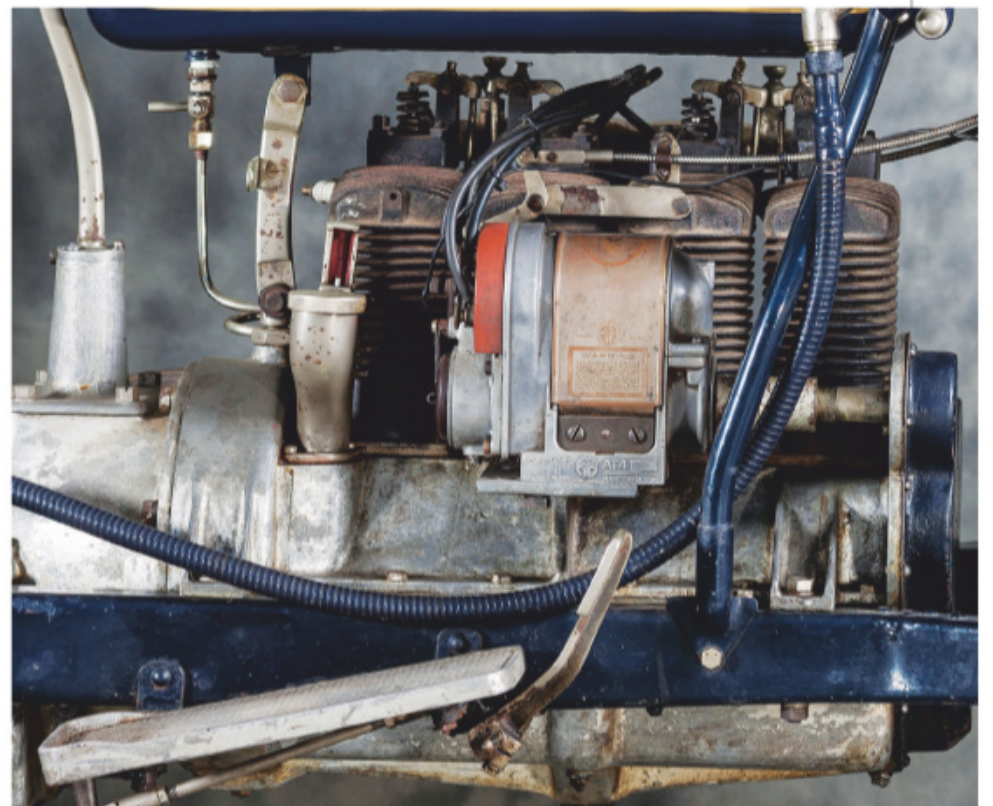
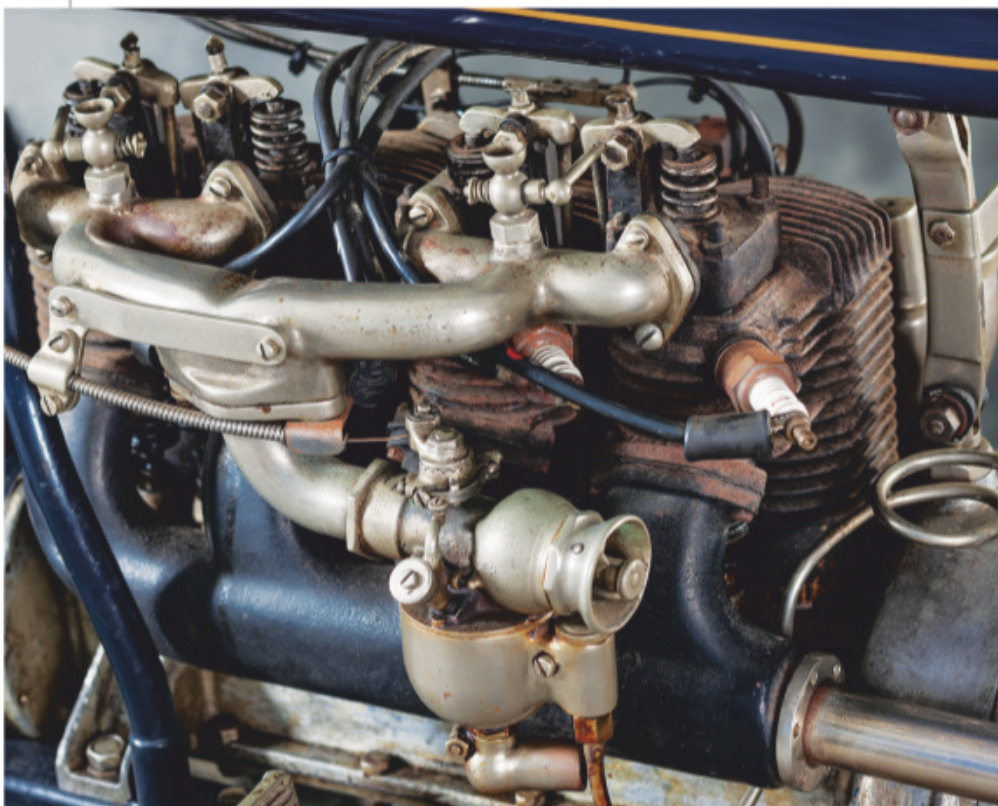
Perhaps the biggest potential was for military and police use. Various companies were vying for lucrative government contracts as the U.S. geared up to enter World War I. When the U.S. Army went to Europe in early 1917, it took a few Militaires along. They were a complete disaster, sinking to their axles in the mud of the Western Front.

Soon Sinclair had gone belly-up financially and a new company was formed, now called the Militor Corporation of New York. Amazingly, a sales poster of this time described the Militor as being “built upon U.S. Army specifications for war purposes.” Perhaps it was being more truthful when it also claimed it was “the motorcycle that is built and drives like a car.”

The business struggled along until 1919, when Sinclair managed to get the project under the wing of carmaker Knox Motors Co., of Springfield, Massachusetts. But not



Idler wheels were dropped when stopped.



Unlike the rest of the machine, the Militaire’s engine was fairly conventional, with inlet-over-exhaust valve layout.

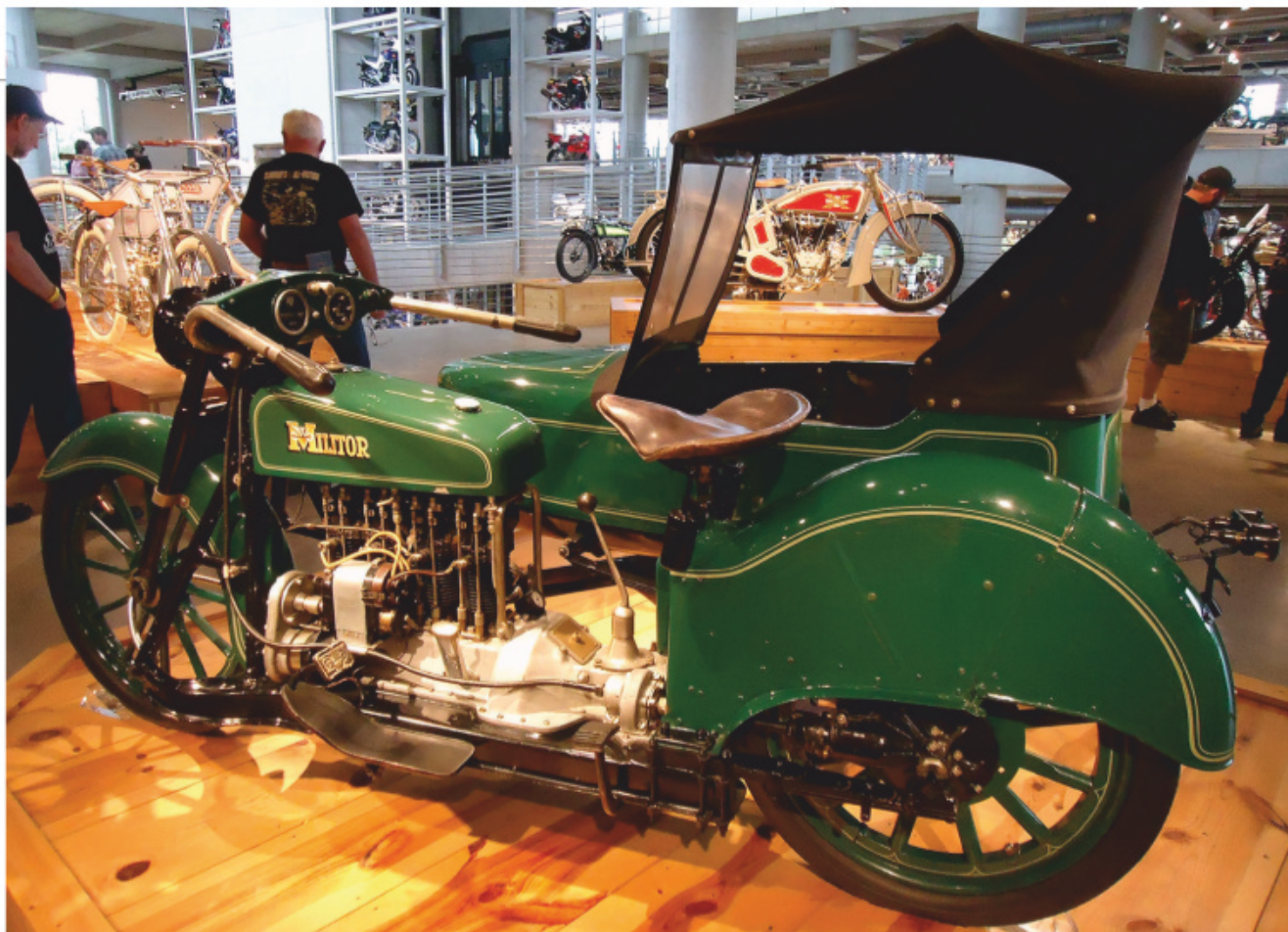




The tank attached to the handlebar holds the gas for the Prestolite acetylene gas headlamp (above). The last version of the machine reverted back to the Militor name.

much came of that liaison and the rights and assets were acquired by the Bullard Machine Tool Co., Bridgeport, Connecticut, again with Sinclair in a lead role.

Sinclair must have been a slick corporate salesman. The Bridgeport factory began a small run before the bike died a natural sales death in 1922, after which Sinclair drifted off into historical oblivion. By this time the engine had grown to 1,306cc in sidevalve form, and then became 1,434cc with overhead valves. It had also abandoned the "idler wheels" and was being sold as a complete sidecar rig. The green 1920 Militor show here is on display at the Barber Vintage Motorsports



Museum in Birmingham, Alabama.

Incredibly, five different investment groups lost money on this amazing machine between 1910 and 1922. Probably only two dozen exist now as complete motorcycles. One of the very few in running order is owned and ridden by Peter Thomson of Thomson's Motorcycle Museum in New Zealand. It was a brave idea, and perhaps an even braver decision to try and market such a wacky two-wheeler. **MC**

## Counteract Motorcycle Balancing

*Increase of 0.7hp and 1.1 ft-lb of torque just by balancing your tires with Counteract!*



### Ready Balance Tubes

Counteract's Ready Balance Tubes are the world's first all in one complete wheel assembly balancing inner tube for motorcycles!



### DIY Kits

Our 'Do It Yourself' Kits, come with everything you need to balance your motorcycle tires in the comfort of your own garage or driveway!



### Service Packs

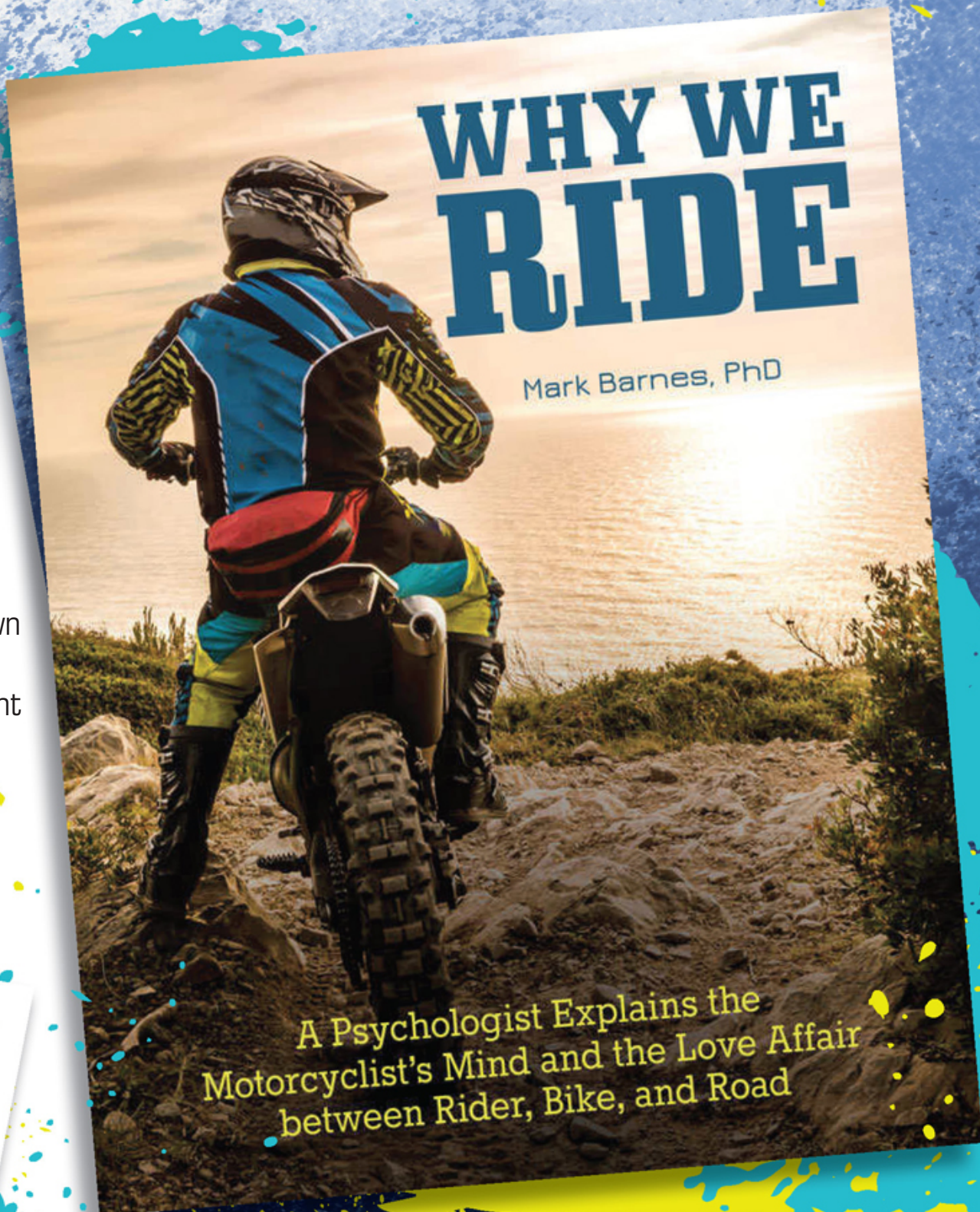
Our Motorcycle Balancing Service Packs contain pre-measured application bags in bulk quantities!

[www.bikebeads.com](http://www.bikebeads.com)  
1-800-572-8952



# A Psychologist's Look at the Love for Motorcycling!

**W**hy would anyone want to do something as dangerous as motorcycling? For those who love to ride, no explanation is necessary. For everyone else, there's **Why We Ride**. Designed as both an explanation for outsiders and an anthem for those within the fold, this book presents the insights of Mark Barnes, a motorcycling clinical psychologist. As a popular columnist at *Motorcycle Consumer News* for more than 20 years, Barnes articulates the elusive physical, emotional, and interpersonal elements that make the world of the motorcyclist such a rich and exciting place. His wide-ranging text covers both sports psychology and the psychoanalysis of common riding experiences, including the results of his own empirical research. Heartfelt and thought-provoking, here is a straightforward account of what makes real motorcyclists tick.



## BACK TO SCHOOL June 2003

I've probably taught more people to ride in the dirt than on the street. That's partly because new riders often feel less intimidated away from traffic and, well, it's also because many basic skills are easier to learn on dirt bikes, which tend to be much lighter and more easily maneuvered than street bikes. In fact, it can be much more daunting than street riding to learn to ride a dirt bike. Most of all, however, it's the sense of freedom and the sense of challenge that draws people to the dirt. Most of all, however, it's the sense of freedom and the sense of challenge that draws people to the dirt.

**A**t the teaching hospital where I did my clinical internship, I was assigned to a "low-risk" unit. This was a unit where the patients were relatively healthy and the medical problems were not life-threatening. It was a unit where the patients were relatively healthy and the medical problems were not life-threatening. It was a unit where the patients were relatively healthy and the medical problems were not life-threatening.

## 2: FINDING YOUR BALANCE

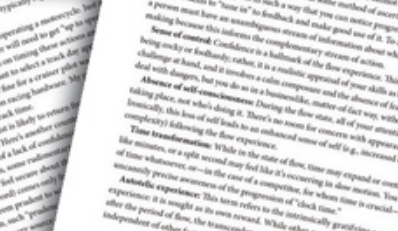
While a number of factors contribute to the flow experience, one factor stands head and shoulders above the rest as a determining influence and a constant challenge: skill level. The CIB principle functions as a magical pivot point in the relationship between rider and bike. The CIB principle functions as a magical pivot point in the relationship between rider and bike. The CIB principle functions as a magical pivot point in the relationship between rider and bike.

## Cruisin' Down Easy Street...Not!

Activities that are very familiar, make low and small demands, and where the rewards are immediate, most of us find them to be the most enjoyable. It's a big mistake to think of riding as a "hobby" or a "pastime." Riding is a skill, and it's a skill that can be learned and improved upon. It's a skill that can be learned and improved upon. It's a skill that can be learned and improved upon.

## COUNTERSTEERING September 2004

**T**he way to go right is to go right. Motorcyclists who have had proper training, however, know that this is not the case. The way to go right is to go left. The way to go right is to go left. The way to go right is to go left. The way to go right is to go left. The way to go right is to go left.



**\$22.95**  
~~\$24.99~~

**Motorcycle**  
CLASSICS

CALL 800-880-7567 OR VISIT  
[www.MotorcycleClassics.com/Store](http://www.MotorcycleClassics.com/Store) TO ORDER!  
ITEM #9290 | Promo Code: MMCPAJZ3



# THEY'RE ONLY ORIGINAL ONCE







# 1968 Yamaha DT-1

Story by Greg Williams

Photos by Jeff Barger

**F**or most of his motorcycling life, Al Brotz has spent the majority of his time looking through a slight haze of 2-stroke exhaust.

His first bike, at the age of 14, was a used 80cc 1966 Yamaha YG-1. Al and his brother chipped in to buy the little 2-stroke, which ran, but needed some work. Al was excited, his brother, less so. "He rode it once, and then sold his half to me," Al laughs, adding, "Me? I was hooked."

## King of the field

There was a 40-acre field behind the Brotz family home in Sheboygan, Wisconsin. In the future, it would be developed and a Catholic high school would occupy the site, but at the time, the dirt became a different kind of learning ground as local teens congregated with their minibikes and Honda 50s for a bit of offroad fun. With his YG-1 Yamaha, Al says, he was, at least for a short period of time, the king of the field.

His next machine was a Yamaha YA-1, a 125cc 2-stroke single-cylinder street bike. Out riding one day, he stumbled across an offroad riding area referred to as "The Valley." Remembering the fun he'd had in the dirt, he attempted to ride the YA-1 up a steep hill, and promptly learned he didn't have the right machine for the chore. "I was amazed by the guys riding their 250cc 2-stroke Yamahas, and that reinforced my love and excitement for offroad, or enduro, riding," Al explains. That was also Al's introduction to the DT series.





## 1968 YAMAHA DT-1

**Engine:** 246cc air-cooled 2-stroke single cylinder, 70mm x 64mm bore and stroke, 6.7:1 compression ratio, 21.3hp @ 7,000rpm (claimed)

**Top speed:** 71mph (period test)

**Carburetion:** Single 26mm Mikuni

**Transmission:** 5-speed, chain final drive

**Electrics:** 6v, magneto and coil ignition

**Frame/wheelbase:** Dual downtube cradle frame/53.8in (1,366.5mm)

**Suspension:** Hydraulic fork front, dual shocks w/ adjustable preload rear

**Brakes:** 5.9in (150mm) SLS drum front and rear

**Tires:** 3.25 x 19in front, 4 x 18in rear

**Weight (w/half-tank fuel):** 235lb (100.6 kg)

**Seat height:** 29.8in (757mm)

**Fuel capacity/MPG:** 2.5gal (9.5ltr)/35-55mpg

**Price now/then:** \$580/\$2,500-\$5,000



### Beginnings of the DT-1

Launched in 1968, the DT-1 was a dual-purpose street and dirt machine built expressly for the North American market, and it revolutionized the offroad category. When it debuted, the majority of offroad bikes were larger, generally heavier and more expensive British and European machines constructed for dedicated enthusiasts. Before the DT-1, there was no such thing as a cheap, reliable, simple to ride, truly capable dirt bike.

"Yamaha's new DT-1 is as American as Coca Cola," said *Cycle World* in its February 1968 issue. "The fact that it can be ridden on the street is an added bonus. Very efficient lighting and silencing make the DT-1 a most pleasurable mount for going to the market. Or, if called upon, to make a highway jaunt. The 5-speed transmission allows 60 mph at a modest 6,000rpm, while bottom end is low enough for plonking through the woods."

There was no earth-shattering technology used in the DT-1; it was just a well-packaged machine based on a tried-and-true dual downtube and single backbone chromoly steel frame. That was, however, something of a departure from the norm in the Japanese industry, where pressed-steel frames were still regularly employed. The rear swingarm was made of rectangular-section steel, with the pivot point for the swingarm placed at the back

of the engine case, between the widely splayed rear main cradle tubes. A pair of shocks provided 4 inches of travel for the 18-inch spoke wheel, which carried a 5.9-inch single-leading-shoe drum brake laced into a chrome steel rim. Up front, a 19-inch chrome steel rim was likewise spoked to a 5.9-inch single-leading-shoe drum, with a telescopic front fork offering 6 inches of travel.

"Damping is excellent," said *Cycle World* in its review, "and at no time during almost 200 miles in the rough was there any indication of bottoming or topping. The rear suspension is similar in that it seemed to always be soft, but well-damped, never bottoming." They continued: "Lack of frame flexure and good suspension make the DT-1 one of the finest tracking machines in mud and soft sand, especially at rather high speeds."

Providing those higher speeds was a 21.3-horsepower single-cylinder, 70mm by 64mm bore and stroke 246cc 2-stroke engine. With a 5-port cylinder, the 2-stroke engine breathed very well. Featuring what would be considered mild port timing, it produced a wide power band, pulling smoothly from idle to full revs, with a predictable and progressive throttle response. An available GYT (Genuine Yamaha Tuning) kit consisting of a single-ring piston, chrome-on-aluminum ported cylinder, expansion-chamber



Al's DT-1 received the prestigious National Motorcycle Heritage Award from the Historic Vehicle Association in 2017.





exhaust, central-plug cylinder head and 30mm carburetor gave 1,500rpm to the top end and a claimed 8 horsepower boost, just what the doctor ordered for serious competition duty.

Fuel and air were mixed in a 26mm Mikuni carburetor and spent gases were expelled through a high-level exhaust pipe equipped with a muffler and a wire heat guard. Pre-mixing 2-stroke oil and gasoline was not required, as Yamaha's Autolube oil injection system took care of those duties. Interestingly, Yamaha delivered the DT-1 with foot controls that could be swapped from left to right to suit rider preference. This was possible thanks to straight-through shafts, including the gear shift spindle.

A simple magneto provided the spark, while a 6-volt generator provided power for the battery and lights, which could be operated even if the engine wasn't running — a new law in California. Conveniently, the headlamp and taillamp could be removed easily for serious trail work thanks to quick-connect wiring connectors.

A smooth-shifting 5-speed transmission passed power to the rear wheel. *Cycle World's* review noted that after a few minutes of riding, most of its testers were shifting gears without using the clutch. "So close are the ratios, and so positive is the shift, that it soon became a tedious chore to bother with the hand lever," they wrote. Dual instruments were mounted in a removable bracket in front of the wide, braced handlebar, with the speedometer on the left and a smaller diameter tachometer to the right. The rider's cockpit was otherwise very simple.

Fit and finish was tidy, with an aluminum fender over the front wheel and a slim, 2.38-gallon pearl white gas tank atop the frame, and a seat that *Cycle World* claimed "induces sleep immediately," a curious way to compliment its softness and comfort.

### Into the dirt

Back to Al and his love for 2-stroke enduros. After seeing the fun everyone else was having on dirt bikes in The Valley, Al sold

his YA-1 street bike and bought a 1970 Yamaha AT-1, a single-cylinder, 125cc dual-purpose motorcycle. It was many years ago, in the middle of a Wisconsin winter aboard this very bike, that Al picked up his date, Sherry. They later married, and they're together still. "She knew what she was getting into," Al laughs.

Al kept the AT-1 for a couple of years before buying another street bike, a 1972 250cc Yamaha DS-7 twin, a one-year-only model and the forerunner to the RD series. He rode the twin-cylinder 2-stroke to tech school and kept it for a bit before selling it in 1975, and then went quite a few years without a bike.

That changed in 1994. Reading the newspaper classified ads, Al noticed a listing for a 1973 175cc single-cylinder Yamaha CT-3 enduro, with 2,750 miles on the odometer. The bike was 5 miles from his house, so with cash in hand he went to look, and brought the Yamaha back home with him.

"It was 100-percent stock, just the way it came from Japan," Al says. "And, it was the 175 I was dreaming about when I had my 125cc AT-1. At that



Al Brotz and his museum piece, a 1968 Yamaha DT-1, with less than two miles on it.





point, something tripped in my mind. Having that 175 brought back the sound, the smell and the magic of riding a 2-stroke."

After buying the CT-3, Al made it his mission to form a collection of every enduro model Yamaha made in the 1973 model year, from the smallest 80cc to the largest 360cc. He managed to do just that. Some of the machines he bought were projects and required restoration. Others, like the CT-3, he simply cleaned up and left alone. "I showed them off at bike shows and rode them, especially the 360, quite a bit. But I thought that was the end, I thought I was done," he says.

Then, in 2016, at the Barber Vintage Festival, Al was brought up short. At the swap meet, he stumbled across the 1968 DT-1 in these photographs. He wasn't looking to buy another bike, as his collection was complete, but the memories of the bikes in The Valley came flooding back. Plus, the DT-1 had only 1.2 miles — yes, 1.2 miles — on the clock.

"I fell in love with the bike, and kept walking by it," Al says. "I expressed to the seller that I didn't have the cash or the means to get the bike home. We talked for a long time, and I told him if he still had the bike in early 2017, I'd like to buy it. When I called him in January of 2017, he said simply, 'So, when are you coming to pick up your bike?' He'd held on to it for me."

This particular example had been a part of the Jim Moon Yamaha collection. Jim Moon, who died early in 2016, and his wife, Peggy, opened their motorcycle shop in 1971 in Springfield, Missouri. Apparently, Jim had set aside some Yamahas he thought might one day be significant examples of the breed. Enter Bob Church. Bob purchased a number of the collectible

Yamahas from Peggy, including this DT-1. It didn't fit into his own collection, and that's when he offered it for sale — and Al bought it.

"I took over ownership, and all I've ever done is dust it. It's never been worked on, never been out in weather. This thing is spotless, although it is showing a little tarnishing of the alloy, but I don't want to touch it, it's only original once," Al says.

### Award winner

Fittingly, that originality was recognized by the Historic Vehicle Association ([historicvehicle.org](http://historicvehicle.org)) in October 2017, at the 13th annual Barber Vintage Festival. There, Al and the Yamaha were presented with a National Motorcycle Heritage Award — a large crystal trophy that holds special significance for Al.

The only component of the DT-1 Al has altered is the fuel line, as the original had shrunk off the petcock fitting. He's kept the original, however. His long-term plans include running the engine with fuel from a remote gas can — just so he can hear it run — but he won't be putting the Yamaha through its paces.

"It's got 1.4 miles on it now, and that's just from pushing it from the van to the display area at shows," Al explains. "It's what I'd consider a museum piece, and I'm not going to ride it."

He will instead run his 2-stroke 1973 RT360, a bike he picked up from the original owner. Al does fire up his collection of enduro machines on a regular basis, but he continues to ride the 360 on the street and in the dirt, and enjoys nothing more than lofting the front wheel in the air. "You gotta do it," he concludes, "because these 2-strokes just fly!" **MC**





# YOUR VISION

# OUR PARTS



**MIKES XS**  
VINTAGE YAMAHA PARTS

**Z1**  
ENTERPRISES

**Randakk's**  
Cycle Shake  
VINTAGE HONDA PARTS

DIMECITYCYCLES.COM | MIKESXS.NET | Z1ENTERPRISES.COM | RANDAKKS.COM

## Motorcycle CLASSICS

# RIDE'EM DON'T HIDE'EM T-SHIRTS

**front**

S-XL  
#8933-8936  
~~\$15.00~~  
**\$14.00**

**back**

2XL-3XL  
#8937-8938  
~~\$17.00~~  
**\$16.00**

Call (800) 880-7567 or order online at  
[www.MotorcycleClassics.com/Store](http://www.MotorcycleClassics.com/Store)  
Mention promo code MMCPAJZ2

Norton

**BSA**

TRIUMPH

# Job CYCLE

SINCE 1978

**"WHEN YOU  
WANT IT DONE  
RIGHT THE  
FIRST TIME"**

**VINTAGE SERVICES**

- Complete rebuilding of all Vintage British, Japanese & American motorcycle engines & transmissions.
- Valve jobs, cylinder boring
- Welding, custom machining, powder coating
- Complete wheel rebuilding

**COMPLETE REPAIR SERVICE**

**HUGE INVENTORY OF  
NEW OLD STOCK AND  
REPRODUCTION  
PARTS FOR:**

- NORTON
- TRIUMPH
- BSA

**86 BOSTON TURNPIKE,  
(ROUTE 44)  
WILLINGTON, CT 06279**

**860-848-0607**  
FAX 860-487-9916

VISIT OUR WEBSITE: [www.jobcycle.com](http://www.jobcycle.com)  
EMAIL: [info@jobcycle.com](mailto:info@jobcycle.com)

Daily  
Shipping  
Worldwide







# FRENCH BOXER

## 1961 Ratier 600 C6S

Story by Alan Cathcart  
Photos by Kel Edge

**M**“My Ratier is better than any BMW!” proclaimed my new friend Marcel as he knocked back what surely wasn’t his first shot of marc (the French version of grappa) that morning.

Marcel worked as a delivery rider in Paris for the French sports daily *L’Equipe*, starting at 4:30 a.m. each morning as the first edition rolled off the presses in that pre-internet era. It may resemble a BMW, but it was created with French style, and Gallic passion. Monsieur le Président Charles de Gaulle personally chose the Ratier for his Garde Républicaine to escort him. *Vive la France!*

I got to know Marcel before my life in bike journalism, occasionally sharing with him the zinc counter of the café across from my Paris apartment just off the Rue de Rivoli. I’d become interested in the flat-twin-engined bike bearing the Ratier name that I’d often seen parked in the cobblestone triangle outside the café, attached to a sidecar stacked with bundles of the latest edition of *L’Equipe*, which Marcel dropped off at newspaper stands around the city. It looked like a BMW with its shaft final drive and cylinders sticking out on either side. It sounded like a BMW, too, cranked into life via a rear-mounted kickstarter. And it looked as lusty and robust as any of the similar BMW sidecars ridden by Marcel’s colleagues working for rival newspapers, who’d park up alongside the Ratier outside the café. But the Ratier was indeed something different — while clearly of German heritage, it was made in France, not Germany.

### The BMW R12

It was an improbable legacy of World War II that the rugged 746cc boxer-engined sidevalve BMW R12, and its later R71 sidevalve and R75 overhead valve derivatives, should spawn such copious descendants around the globe. The R12 was introduced in 1935, and by 1942 some 36,000 examples had been built, the bulk of which went to equip the Wehrmacht, the German army. Descendants included the Harley-Davidson XA, the Ural and Dnepr, the Chang Jiang, via the Swiss Condor — and the French Ratier.

The Ratier evolved from the 1940-1944 German occupation of Paris, when the Wehrmacht established a massive stock of spare parts there to keep its numerous BMW motorcycles and sidecars running. Known simply as HPK 503, this ware-

house was located in an old bus garage on the Avenue Mozart. After the Allies retook the city in August 1944, a factory was established nearby at Neuilly-sur-Seine under the CMR/Centre de Montage et Réparation label. Operated by the former HPK 503 workers, this was tasked by General de Gaulle’s new government of liberation to assemble complete motorcycles from the huge BMW spares stock, with Jacques Dormoy appointed Directeur Technique to oversee this.

Under his watch, CMR built around 300 examples of the 18 horsepower R12, and the later 22 horsepower 746cc R71, each a sidevalve carrying a *tricolore* BMW-CMR badge with a red quadrant in the trademark blue-and-white BMW roundel to denote that these bikes were produced under new Free French management. A further 80 units then followed, obtained by fitting 38 horsepower overhead valve R75 engines in R71 frames, splitting the difference in terms of designation to call the result the R73! The Prefecture of Police was sufficiently impressed with its 90mph top speed to order 100 examples for the Gendarmerie, but only 80 were delivered before state-owned



At a glance, the Ratier looks like a BMW.





## 1961 RATIER C6S

**Engine:** 594cc air-cooled OHV opposed twin, 72mm x 73mm bore and stroke, 7.9:1 compression ratio, 32hp at 6,500rpm

**Top speed:** 100mph (claimed)

**Carburetion:** Two 26mm Bing

**Transmission:** 4-speed, shaft final drive

**Electrics:** 6v, coil and breaker points ignition

**Frame/wheelbase:** Dual downtube steel cradle frame/56.3in (1,430mm)

**Suspension:** Telescopic fork front, swingarm with dual Lelaun shocks rear

**Brakes:** 7.9in (200mm) TLS drum front, 7.9in (200mm) SLS drum rear

**Tires:** 3.25 x 19in front, 3.5 x 19in rear

**Weight (dry):** 429lb (195kg)

**Seat height:** 30in (760mm)

**Fuel capacity:** 7.1gal (27ltr)

CMR ran short of components to build them and, having fulfilled the reason for its creation, shut down in 1947.

### Moving forward

CMR managers had anticipated this, and in 1946 five of them including Dormoy had collectively founded a new private company called CEMEC (Centre d'Etude de Moteurs à Explosion et Combustion) to continue the construction of cloned BMWs using what remained of the old German spares stock, mixed with new components commissioned from French suppliers as these became increasingly necessary. BMW's pressed-steel frames and square-tube chassis were replaced with a round-tube frame produced by Ets. Michel in Paris, now with plunger rear suspension, and new crankcases were cast in a stronger monobloc format to create the CEMEC L7 (L for Latérale, or sidevalve). This 78mm x 78mm bore and stroke, 748cc design made 22 horsepower and used a foot-change 4-speed gearbox rather than the R12's hand-change item, and was increasingly made from French components.

Production of the L7 began in 1948 at Bièvres, some 12 miles southwest of Paris, and lasted until 1954, when CEMEC was

wound up, having produced just 1,289 motorcycles in six years — insufficient to fund the development of a more modern engine to replace the ancient sidevalve design.

Even so, 19 specially designed CEMEC C8 machines were supplied to the Garde Républicaine to escort newly elected President René Coty on his inauguration in December 1953. These used copies of the overhead valve cylinders and heads of a Zündapp KS750 on the crankcase of a CEMEC L7, delivering 40 horsepower and capable of a top speed of 100mph. Around 200 further such engines were delivered to the Panhard and Rosengart car companies to produce their respective answers to the all-conquering Citroën 2CV! But this was insufficient to ensure the commercial viability of CEMEC, which duly folded in September 1954.

### Revival

Ratier was founded in 1904 by woodworker Paulin Ratier to fabricate wooden propellers for the French aircraft industry, as the French air force expanded during World War I. To meet demand, Ratier opened a factory in a sawmill in the heavily wooded region of Figeac. When metal propellers came onto



The Ratier didn't carry its driveshaft inside the swingarm as practiced by BMW, but it did use a similar kickstart layout.





the scene post-World War I, Ratier patented a variable-pitch version, of which his company became the world's leading producer. By 1939, Ratier employed 500 people making propellers equipping 90 percent of French air force aircraft. However, with the German occupation of France in 1940, demand plummeted and the company resorted to producing bicycles, with the workforce falling below 100 people. Rejoining the aircraft industry postwar, Ratier made a comeback, employing 1,000 workers by 1960 — the year in which it was purchased by booming French electronics giant CSF. Today, it's a key supplier to Toulouse-based Airbus, making the wing elevators for the A380.

Back in 1954, Ratier opened a subdivision named RAM/Ratier Aviation Marine in Montrouge, on the southern outskirts of Paris, where it manufactured a 2-stroke tractor, while looking for work from the French government. Ratier took on the job of maintaining the fleet of CEMEC/CMR flat-twin motorcycles run by various government departments, including manufacturing new parts to keep them going, and restarting production of the venerable sidevalve L7. The first Ratier L7 was produced on April 12, 1955, and was the first such motorcycle to be 100-percent French-built — this time around, no BMW-made parts were used in its construction. Eight different variations on the same basic model, each subtly different (for example, twin Gurtner carbs versus a single Solex) were produced between 1955 and Dec. 15, 1959, with 1,035 built in all, marketed under the slogan "Aviation technology applied to the Motorcycle" — even if the somewhat venerable design dated back to 1938, and the BMW R71!

During this time, Ratier management decided they needed to produce a motorcycle that would allow the Gendarmerie to keep up with increasingly fast modern vehicles like the avant-garde Citroën DS launched in 1955, and a favorite of high-ranking government officials. The Ratier C6S employed an all-new 594cc

overhead valve flat-twin engine with a 72mm x 73mm bore and stroke. Producing 32 horsepower at 6,500rpm, it was fitted as before with a 4-speed gearbox and shaft final drive. This was housed in a double cradle tubular steel frame, but instead of the Earles fork ubiquitous on contemporary BMWs, the Ratier C6S featured a well-made telescopic front end and twin Lelaury rear shocks. The cast aluminum brakes were Ratier's own, and very effective at that, with the 7.9-inch (200mm) twin-leading-shoe front drum matched to a same-size single-leading-shoe rear to stop a bike weighing 429 pounds dry.

Ratier management based the business plan for this new model on the 1,200 bikes ordered by the Ministry of the Interior, with which to equip the CRS police, envisaging another 7,000

bikes for the Gendarmerie who, they reasoned, would be so impressed by the performance of the C6S and its 100mph top speed that they'd cancel their orders with BMW and switch to the Ratier. Indeed, on re-assuming office in 1959, the newly re-elected President de Gaulle did indeed decree that his entire Garde Républicaine squad of motorcycle escorts should henceforth be

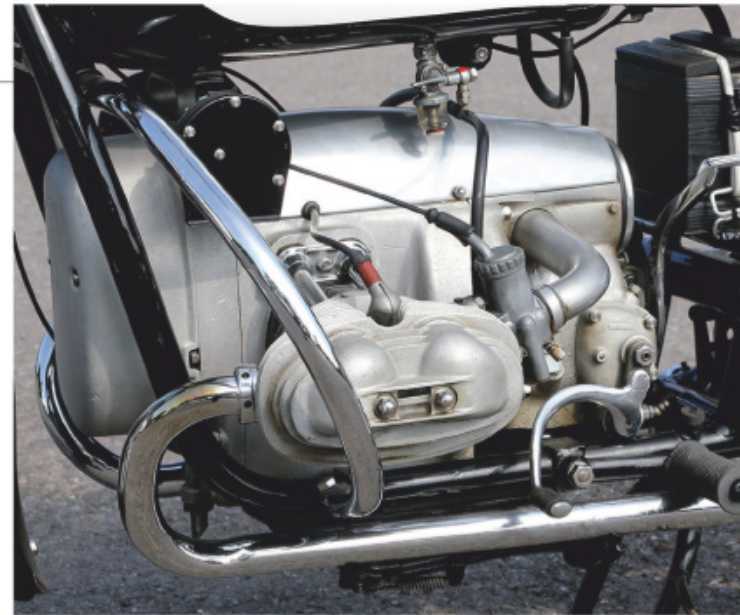
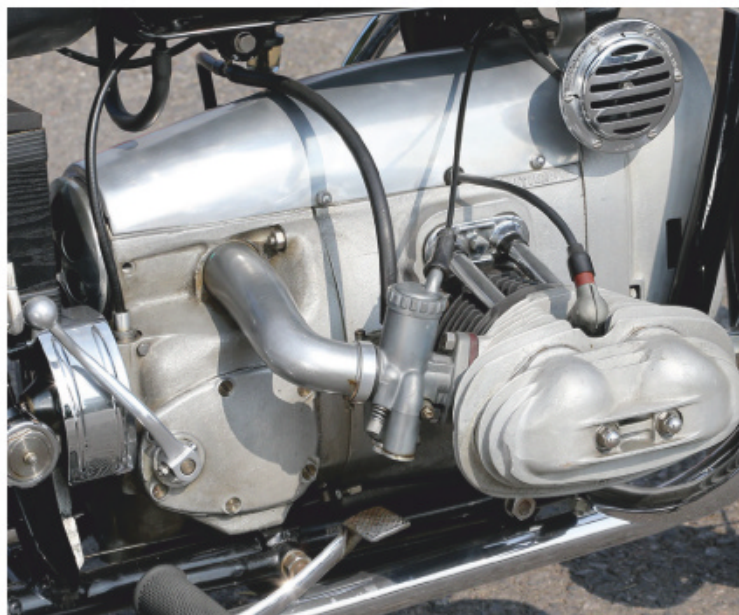
mounted on Ratiers, with their cream side panels on the black fuel tank representing a successful attempt at some added chic. This larger, 7.1 gallon fuel tank permitted the 174-mile journey along the N19 between the presidential Elysée Palace in Paris and de Gaulle's private home at Colombey-les-Deux-Églises to be accomplished without stopping to refuel.

## Second death

But the Gendarmerie remained unconvinced, and maintained its allegiance to the new-generation BMW R69S, which reduced Ratier's annual production to just 500 bikes a year — insufficient to be profitable. Indeed, between the start of C6S production on July 13, 1960, when chassis No. 40001 rolled out of the Montrouge factory, and the end of production in

"The Gendarmerie remained unconvinced, and maintained its allegiance to the new-generation BMW R69S."





At first glance the Ratier's boxer twin looks very much like a contemporary BMW, but with slightly smoother styling.

December 1962 with chassis No. 41065, just 1,057 complete examples of the C6S were produced, plus some spare frames. 230 of these were indeed acquired by the Gendarmerie, with most of the other 800-odd bikes destined for the CRS and a handful of private owners. In 1964, the Presidential escort squad abandoned its Ratiers in favour of a BMW R69S fleet.

The obstinacy of the Gendarmerie had forced Ratier management to make a special effort to sell the bike to private customers, which neither CEMEC nor CMR had ever really done, given the appetite back then from government departments for every bike they could build. This retail push included an attempt to grab a slice of the flourishing American market, which had now discovered foreign motorcycles — including the BMW. Ratier therefore developed the C6S America, three of which were built, with a higher compression ratio and more sporting riding position, with two shipped to the U.S. for promotional purposes and unveiled at the Laconia Rally in New Hampshire in June 1961. Despite Ratier management's best efforts, nothing came of this. A C6S was also displayed in Russia at the 1961 Moscow Trade Fair, perhaps as a result of which several Ratier look-alike components later appeared on the locally made BMW-derived Ural!

### Sammy's Ratier

As the CRS gradually divested itself of its Ratier fleet, the bikes ended up in the hands of private owners, and during my two-year stay in Paris in 1968-1969 they were still relatively commonplace on the streets of the capital. But the sight of one on British roads was always a rarity, making the example of the C6S to be found in the Sammy Miller Museum ([sammyMiller.co.uk](http://sammyMiller.co.uk)) on Britain's South Coast (alongside a BMW R69S of the same era), a fascinating exhibit. I'd never had the chance to ride one before — my mate Marcel did once offer to let me ride his, but I didn't fancy doing so with a sidecar full of newsprint! So the chance to take Sammy's Ratier for a canter along the lovely New Forest roads answered something I've been won-

dering about for the past 50 years: What's a Ratier like to ride?

Judging by its chassis No. 40416, the museum bike is a 1961 model with an earlier engine (No. 40184). British enthusiast Ian Munro purchased this bike from a French visitor to the U.K.'s Beaulieu Autojumble 30-odd years ago. It was in running order with mostly correct parts, including a pair of brand-new mufflers, and after restoring it to the condition it's in now and adding more miles to it, he sold it to Sammy Miller in 2011.

Ratiers are very robust and long-lived — I remember being impressed that Marcel's had been round the clock once, according to him — and this C6S shows no sign of old age despite the 92,497 kilometers (57,575 miles) on its odometer. After lifting the tall knob on the back of the headlamp (which also works the lights) to turn on the ignition, I eventually succeeded in firing it up. Even with the low 7.9:1 compression ratio, the rearwards-mounted foot-starter is an acquired skill as well as a nuisance. You have to stick it on the stand to be able to operate it, and I resorted to run and bump once the engine was warm, taking care not to knock the left-hand 26mm Bing carb, presumably sourced from a later BMW.

Once lit up, the Ratier sounds, feels and performs exactly like the BMW R69S that my American flat-mate Jeff Craig ran while living in London during the 1970s. The Ratier flat-twin engine is just as smooth and torquey, and it has the same slightly heavy albeit reassuring handling, so that even with the compliant telescopic fork fitted instead of the BMW's Earles front end, it feels very stable and planted in faster bends, as I

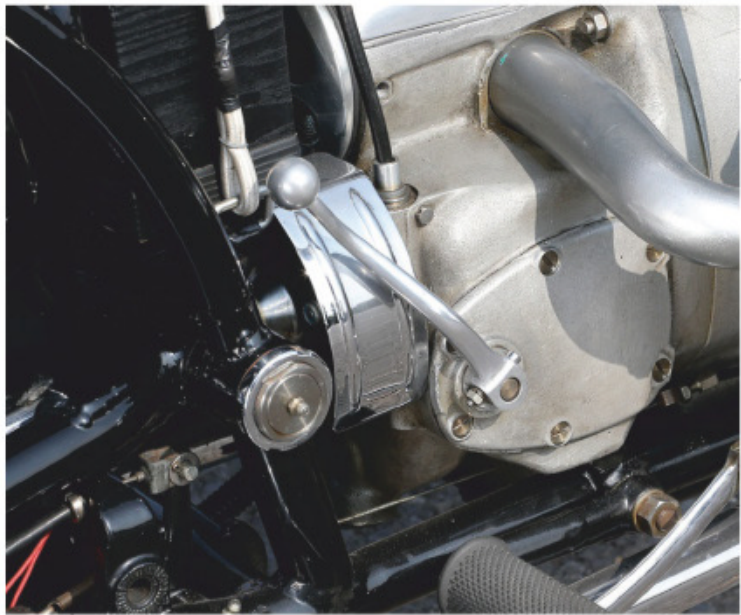
## The Sammy Miller Museum

The Sammy Miller Museum ([sammyMiller.co.uk](http://sammyMiller.co.uk)) in New Milton, Hampshire, U.K., is crammed full of interesting machines — including factory prototypes and numerous ingenious designs from all over the world. It also counts one of the world's largest collections of exotic racing bikes, all of them in running order and including the legendary Moto Guzzi 500 V8, the supercharged AJS 500 V4 and post-war Porcupine, and innumerable famous bikes from Triumph, Norton, AJS, Velocette and many more. There are also offroad enduro, motocross and trials icons. The museum is open to visitors daily from 10 a.m. year-round.



From left: Sammy Miller, Alan Cathcart and Bob Stanley.





Separate hand lever ensures you can always find neutral (far left). The view from above is pure BMW (left).

hard to find neutral, which presumably is why Ratier copied the short lever topped by a round knob sprouting out of the right side of the gearbox casing, just like on a BMW of the era, for finding neutral by hand when necessary.

The Ratier was publicized as being one of the first bikes you could cruise on at 100mph, and I have no reason to doubt that, with its wind-cheating low overall build taking full advantage of the low-slung flat-twin engine. The 19-inch wheels give welcome extra ground clearance, with the low center of gravity delivering good stability over the bumps and lumps of 1960s highways, aided by the Lelaury rear shocks.

The Ratier C6S is more than a footnote to World War II and what came after in two-wheeled terms. It's a fine French flag-bearer for a Gallic motorcycle industry that would soon be no more. If only a company with more commitment and better resources to making a success of it had been manufacturing this bike, it might well have led to greater things. For sure, it's a missed opportunity. **MC**

suppose it should be with that long, 56.3-inch wheelbase. The comfy 30-inch-high seat (with a toolbox beneath it) delivers a fairly low but relaxed riding stance, though the right carburetor's inlet pipe inevitably gets in the way of your foot somewhat. The one-piece handlebar is quite tall, resulting in a fairly upright stance — ideal for presidential escort duty. The 7.9-inch brakes are excellent, especially the single-leading-shoe rear, though with the shaft final drive it's wise not to use this too hard. But the Ratier-made twin-leading-shoe front drum is effective as well as good-looking.

The C6S's 4-speed gearbox's single-plate clutch has a light action, making it ideal for town work and especially escort duty, but the shift action of the left-foot gear change is rather slow, and you will miss a gear if you try to rush things. It's also

Alan Cathcart rides the 1961 Ratier C6S at the Sammy Miller Museum.







# IRON PIG TOUR

## Across the USA on a 1970 MZ ES250/2

Story and photos by Kim Scholer

In early 2018, I shipped my East German-built 1970 MZ ES250/2 — nicknamed “Iron Pig” — from Denmark to Los Angeles, California. Being a Gold Wing rider trapped riding an MZ, I like to carry a lot of stuff when I tour, so I equipped the MZ with a little Czechoslovakian PAV 41 trailer to carry my excess luggage. The almost half-century-old motorcycle has been my daily driver for six or seven years, and while its vintage 2-stroke technology makes it the two-wheeled equivalent of a skunk, it’s comfortable, strong and reliable enough for a cross-country trip. Or so I hoped.

It is worth noting that this bike has been modified somewhat, including the addition of a later 5-speed gearbox, a Mikuni carburetor, modern electrics and some chassis improvements. The plan was to ride it from Los Angeles, California, to New York City, New York, and then sell it before flying back home to Denmark. Many years ago, I rode a Danish-built 4-cylinder Nimbus hardtail the other way, from NYC to LA, but on that trip I ran out of time and money by the time I reached the Pacific. There was also a lady I met on the East Coast, and one result

The MZ as it arrived in Los Angeles (left), carefully crated for its voyage from Denmark to California, the Czech PAV 41 trailer strapped on top of the bike. The Iron Pig meets American iron: Crossing the Mojave desert (above).







Clockwise from above: Death Valley; preparing for a ride in a Boeing Stearman biplane; the second flat tire in two days; repairing the exhaust header on the side of the road; the restored sign at the Long Holiday Motel in Gunnison, Colorado.

was that I never saw the Southwest, so now this beautiful region was first on my list.

I spent a week riding around on LA's fascinating freeway system, visiting famous bike shops like Garage Company and incredible collections like the Petersen Automotive Museum. The highest point — figuratively and literally — was a flight out of Compton Airport in a World War II biplane, doing aerobatics over the Pacific. Skipping breakfast that particular morning was probably my smartest decision of the whole trip.

### Down on power

After LA, the MZ and I worked our way through Death Valley, then Las Vegas, the Hoover Dam, a small part of Route 66, the Painted Desert, the Grand Canyon and the Rocky Mountains in Colorado. It was in the Rockies that I met tour groups of Europeans, almost always riding the biggest, baddest rental Harley Electra Glides they could afford. Judging by the way they nervously steered these half-ton behemoths around mountain curves — or tipped them over in parking lots — methinks they would have been better off with something un-American, like a BMW G650GS.

The MZ had run fine in Denmark, but now it was way down on power. Playing with different size jets just made mileage alternate between abysmal and merely bad. I checked everything, and I even went so far as to cut open the exhaust to see if its

internals were clogged up, but to no avail. Getting up and over 11,000-foot-high mountain passes with 10-11 sea level horsepower on tap wasn't impossible, just a bit slow uphill in second gear. Downhill was no problem, as the fully loaded trailer hardly made itself felt back there.

Half the time I stayed in motels, and the rest with people I already knew. Mostly Nimbus people, like the Nimbus trader Travis in Colorado, a really nice chap who at one point even tried to teach this European how to shoot a pistol. As it was, the local wildlife would have absolutely nothing to fear from me.

### Playing chicken with trucks

Down from the mountains, I cruised at 50-55mph through the flat Kansas landscape, helped by Vayu, the Hindu god of the winds, who arranged for consistent tail winds most of the rest of the way. If occasionally there was a head wind, or strong side wind, I would downshift to fourth gear and be content with 45mph. Or slipstream trucks when I occasionally took a stretch on the freeway.

Heading up through the Flint Hills from the south on the otherwise beautiful Kansas Turnpike, the trucks liked to play some sort of chicken game with me. While I worked hard to maintain the 45mph minimum speed limit going uphill, I could see them in my mirrors as they came barreling towards me at 75mph — and then swerved around me at the last possible moment. Only





A panoramic shot of the Arizona desert.

one of them “won,” scaring me out on the shoulder. Bastards ....

In Topeka, Kansas, I spent a few really nice days in the company of Richard Backus, the editor of this magazine, before riding on to Chicago. From Chicago I headed south to the impressive National Museum of the U.S. Air Force in Dayton, Ohio, where for the only time in 2-1/2 months of travelling I got caught out in rain.

## Mechanical trouble

Of course a few things went wrong with the old East German. Still in Los Angeles, the speedometer drive failed, but was easily fixed with a bicycle speedo. The thread in the engine cylinder where the exhaust header pipe attaches gave up the ghost in Colorado, but was fixed with springs holding it in place, like old motocross bikes.

The only serious trouble were two rear tire flats and a rear



Clockwise from above: Old-school GPS? Handwritten directions, kept in place with a rubber band; meeting a friendly police officer in Missouri; a covered bridge somewhere along the way; visiting the guys at Sixth Street Specials.





wheel bearing that needed replacing. Apparently trusting in the motorcycle gods to see me through, I did not bring tire irons or spares, so on all three occasions the MZ had to be transported to the nearest workshop. It was pricey, but still, just the kind of problems that can be fixed with money and a day's delay. And after the bearing mishap in Indiana, the MZ ran with no breakdowns for the rest of the trip.

### Old Wehrmacht bikes

Every so often, the MZ's plush suspension really came into its right, like when the road surface resembled that of the lousy East German roads it was originally designed for. After getting through such moonscapes in Detroit, once in Canada I reunited with Polish friends in Toronto and Montreal. The Poles I had met in Denmark, before the Iron Curtain came down: Back then, they would ride



Kim Scholer's route, covering some 5,400 miles, coast to coast, across the U.S.

by Copenhagen on a series of old Wehrmacht BMW and Zündapp sidecar machines to sell in the West.

With the course now set straight south, I rode into the U.S. once again, and in due course ended up at Sixth Street Specials motorcycle shop — good guys who race vintage Brit bikes — on Manhattan's Lower East Side.

This marked the official end of my 5,400-mile trip. From there it was just a short ride to a swap meet a few hours north of the city, where I was to deliver the MZ before it would eventually get transported to Twisted OZ, a motorcycle museum in Augusta, Kansas, that wanted to buy the MZ after I visited them while riding through Kansas. I'll go back to Denmark, but the MZ has found a new home here in the U.S.

### Epilogue

All but five people across the U.S. had recognized the MZ, while at the swap meet several guys from Poland, Germany and the Czech Republic came over, telling me it was their first motorcycle. One even said a good number of MZs had been imported into the U.S., and that he once sold five of them to Cubans in Florida. It should also be noted that just like in Denmark (and unlike when I ride any of my other bikes), riding across America, the MZ had a way of attracting women of all ages. Go figure ...

It was a great trip. The MZ and I both held up; people were nice and helpful when needed; and largely, I saw what I had come to see. Most days had gone along at a leisurely pace, and other days it was like somebody was sitting with a finger on the fast-forward button. If you want to see everything I saw, go to [mz-across-usa.blogspot.com](http://mz-across-usa.blogspot.com) for a non-condensed version and more pics. **MC**



From Los Angeles, California, Kim made it all the way to Broadway in New York City.





# A LITTLE FUN ON THE SIDE



# 1941 BMW R75 sidecar

Story and photos by Dain Gingerelli

**M**otorcycle sidecars constitute the motoring community's demilitarized zone. As three-wheelers they separate the mundane and predictable world of automobiles and trucks that lumber along on four wheels from the serendipitous lifestyle that motorcyclists passionately enjoy with their free-wheeling two-wheelers.

But more than that, sidecars are just plain fun to ride. Someone once suggested to me that a sidecar is a motorcycle with a little fun on the side. Perhaps that's an oversimplification, but it's true. There's something magically intoxicating about a sidecar that attracts all sorts of people to admire the odd-looking vehicles.

My first experience with a sidecar occurred in 1979 when I worked for *Cycle Guide* magazine. Our publication road tested a Harley-Davidson sidecar that summer, so I got plenty of seat time with the Milwaukee-brewed rig. During one outing I stopped at my parents' house







## 1941 BMW R75 SIDECAR

**Engine:** 745cc air-cooled horizontally opposed twin, 78mm x 78mm bore and stroke, 5.8:1 compression ratio, 26hp @ 4,000rpm

**Carburetion:** Two Graetzin Sa 24mm

**Transmission:** 4-speed w/reverse (low-ratio 3-speed w/ reverse for offroad)

**Electrics/ignition:** Noris magneto

**Frame/wheelbase:** Tubular steel/56.9in (1,444mm)

**Suspension:** Telescopic fork front, rigid rear w/tube springs for sidecar only

**Brakes:** 9.8in (250mm) drum brakes front and rear, 9.8in (250mm) hydraulic brake for sidecar

**Tires:** 4.5 x 16in front, rear and sidecar

**Weight (dry/stock):** 882lb (400kg) with sidecar

**Fuel capacity:** 6.3 gal (13.9ltr)

**Price then/now:** NA/\$45,000

for a quick visit. By chance, Mom and Dad were heading out the door for a dinner date with friends. As the Harley rig and I rambled up to their driveway, Dear Mom greeted me with the biggest smile, followed by, "You've got to take me for a ride in that," her index finger pointing excitedly at the sidecar itself. No matter that she wore a really pretty and delicate evening dinner dress and her hair was prim and proper for her date with Dad, she wanted a ride. I fetched the open-face helmet that we kept stashed in the sidecar for such occasions, and told her to put it on. Then we went for a short ride. She absolutely loved it, this from the woman who, during my formative years, was set against me riding (and racing) motorcycles in the first place.



The handshifter on the right side of the gas tank allows for shifting between on-road and offroad gear sets, plus reverse (above). Owner Mike Dunn and his R75 (right).

### War wagon

Mike Dunn, who owns Vintage German Motorcycles ([vintagegermanmotorcycles.com](http://vintagegermanmotorcycles.com)), enjoys the same kind of interaction with bystanders whenever he rides his World War II-vintage 1941 BMW R75 sidecar featured here. "This thing always attracts people," Mike says, adding, "and we get all sorts of waves on the freeway when we ride." By we, he means him and his wife, who by chance had ridden the rig from their home in Riverside, California, to nearby Temecula where they enjoyed lunch at the city's historic Old Town district a couple days before I photographed the veteran World War II bike. "When we finished lunch and went back to the bike," Mike recalled, "there was a small crowd around it." And, he reassured me, everybody had smiles on their faces.

But when this BMW sidecar originally rolled onto the streets of Europe it didn't necessarily garner favorable looks and childlike grins from bystanders and people along the road. This rig, boasting serial no. 750097, signifying that it was the 96th particular







R75 sidecar built, was destined specifically for use by Germany's Third Reich as a weapon of war. That was June 28, 1941, when war raged all across Europe. By war's end BMW had turned out an estimated 16,500-18,000 copies of the big three-wheeler.

### Design standards

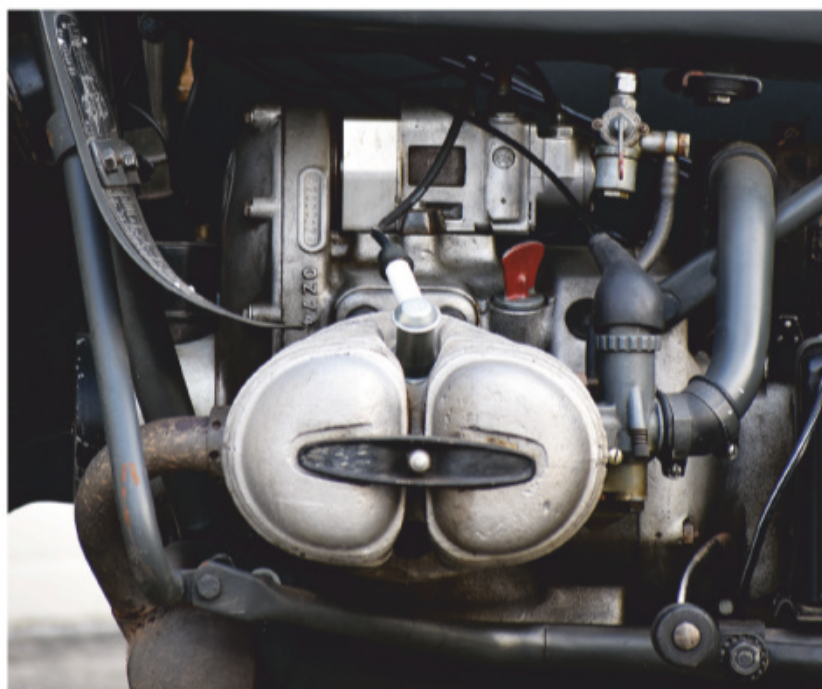
The story of the R75 army sidecar actually has its origins in 1937 when the Wehrmacht's Oberkommando des Heer (OKH) summoned management from BMW and Zündapp to develop a bike with sidecar capabilities for the military. The new bike would replace BMW's existing R12, a model with an obsolete rigid frame and an aging flathead engine. The OKH wanted a rig that had a more powerful engine strapped into a frame using rear suspension.

In fact, the Wehrmacht presented a list of mandatory requirements, chief among them that the BMW and Zündapp bikes would share numerous components for interchangeability in the field. For instance, 4.5 x 16-inch tire size was to be used, which also happened to be the same tire size found on the military's Volkswagen-built Kübelwagen, a Jeep-like all-purpose lightweight personnel transport vehicle. The motorcycles' fenders were to allow clearance for non-skid chains to be fitted onto the tires, front and rear, and fuel capacity needed to sustain a range of at

least 220 miles (350 kilometers). Minimum ground clearance for the two-wheel drive bikes was to be no less than 6 inches (150mm), and maximum speed was set at 60mph (95kph) or more while toting a full load of 1,100 pounds (500 kilograms, the calculated weight of three soldiers and their equipment).

But according to Ian Falloon's book *The Complete Book of BMW Motorcycles*, the most important specification was to be the bike's "marching speed." As Fallon pointed out, the proposed bike would need the "suitability for sidecar use and the ability to sustain a marching speed of 2 miles per hour without overheating." That would allow the three-person sidecar to chug along effortlessly and without overheating (something the R12 was prone to do) while traveling alongside infantry on their way to battle.

Both companies submitted designs using boxer-style twin-cylinder engines, but the bikes' chassis were rather dissimilar. Zündapp equipped its KS750 with a linkage front fork more suitable for heavy loads, while BMW chose a hydraulic fork. Testing proved the BMW's fork tended to easily compress as the bike's load increased. In addition, the KS750's pressed-steel frame was less expensive to manufacture than the BMW's tubular frame, prompting the German high command to select Zündapp's entry. But thanks to what amounts to Teutonic tenacity and toughness, mixed with a



The 745cc horizontally opposed twin makes 26 horsepower at 4,000rpm.





The R75 wears a variety of period accessories, including a first aid kit, canteen, gas primer can, saddlebags and more.

fair amount of stubborn pride, BMW's management convinced the OKH to retain their design, too. As Mike put it, "Naturally BMW refused to make a Zündapp KS750 under license, and so both models [BMW R75 and Zündapp KS750] exist today. But, BMW did agree to build their R75 with the same characteristics of that of the KS750." And so, while both models utilized a large number of interchangeable components, the BMW R75 that the army accepted retained much of its original design, too.

### A versatile engine

As typical from BMW, the R75 engine was stout in structure and powerful in performance. Compression was set at 5.8:1 and the overhead valves were prompted by a single camshaft hunkered deep within the ubiquitous BMW engine cases. The Noris generator and magneto shared the same aluminum drive gear with the camshaft, too. Topside, a pair of Graetzin carburetors received air from a common moist-felt air filter as seen on Mike's bike; the filter location was later moved topside onto the gas tank for all future models. And to assure that the R75 would accept any fuel that was on hand in a busy war zone, the

two low-compression combustion chambers were engineered to burn fuel that seemingly had a combustibility factor only slightly more than that of water. Indeed, reports from the time indicate that, with petroleum being scarce, uber low-grade gasolines and various synthetic fuels often found their way into the R75's opposed cylinders during the war.

The R75's two-wheel drive system (both rear wheels) was rather unique, too. Drive initially came from a 4-speed transmission that included another set of numerically high-ratio (low speed) gears for offroad use, plus a reverse gear for maneuverability in a rearward direction (but not intended for retreating from combat!). While conventional gear shifting was accomplished with a left-side foot shift pedal, a hand shifter located on the gas tank's right side allowed for selecting on-road or offroad gear sets, plus reverse. Positioning the shift lever to the "Gelande," which stood for "Offroad" setting, selected the low-speed range of gears. Selecting "Strabe," meaning "Street" in German put the transmission's high-range set of gears back into play. The power-dividing crown wheel differential at the rear equalized any varying speeds of the two



Owner Mike Dunn enjoys riding his sidecar rig on the street, where it draws attention everywhere it goes.





Mike added a white stenciled regimental emblem to the front and rear of the sidecar, as this bike was originally used by a German Army airborne reconnaissance unit (right).

rear-drive wheels while turning, allowing the R75 sidecar to perform as well as a four-wheeler. The low-range set of gears in particular enabled the R75 to climb steep grades. Mike says the half-ton rig is capable of ascending hills with up to 40-degree inclines.

### War refugee

Nobody knows for sure when, where or how the war ended for BMW R75 no. 750097, but Mike can trace its history from about 1993, when a motorcycle collector in Austria named Willi bought the bike at auction in France. At the time, the rig was in pieces, but Mike says that the engine and chassis numbers match, so what Willi bought probably rolled as a unit during the war years and beyond. Just how far beyond the end of the war the rig continued to roll is anybody's guess, but Willi restored the BMW during the 1990s. At some point he sold the restored sidecar to another enthusiast in Austria who wishes to remain anonymous, and who also happened to have served in the post-war NATO-alliance German army as a paratrooper. And that's where Mike personally picked up the trail.

"I was riding in the Alps when I first saw the R75 sidecar," Mike recalls. Mike was piloting another World War II vintage sidecar (a Zündapp KS600), with his daughter riding shotgun, and during a fuel stop the R75 rolled up. Mike struck up a conversation with the owner, and they decided to continue their rides together. At the end of the ride Mike and the owner agreed to keep in touch via email, and by sheer coincidence a short time later one of Mike's friends in California ended up buying the sidecar and brought it home.

"My friend Mark bought it," Mike says, adding, "I was envious, in a friendly sort of way." A short time later, though, Mark was busying himself raising funds for another project, so Mike made an offer to buy the R75, selling two bikes, a Zündapp KS500 and a BMW R61, to fund the purchase. That was last summer. "Once I got the R75 I started replacing a few things to bring it closer to being as period correct as I could make it," Mike reports. "I pound German eBay daily. I'm always trying to find parts for it."

Pounding the internet has paid off. Mike's been able to locate items like the period-correct porcelain spark plug caps and the gas primer can affixed between the bike and the sidecar. He cosmetically touched up the license plate to give it a natural-looking patina, and when he learned that R75 sidecars



were originally used by one of the German army's more legendary airborne reconnaissance units, Mike located the proper regimental emblem and stenciled a copy of it to the front and rear of the sidecar. According to Mike, what you see represents the paratrooper regiment known as Fallschirmjäger-Kradshützen-Aufklärungs-Kompanie 1 Abteilung der 2, a unit that played an integral role in the battle for Brest, France, in September 1944.

There's also a paratrooper emblem on the saddlebag, and if you haven't figured it out yet, the swivel post that's positioned at the front of the sidecar typically held an MG 34 machine gun back in the day. The R75 sidecar used by Germany's Wehrmacht military was never intended to bring smiles to people's faces.

But that was then, this is now, and today, historic motorcycles like this play an important role in preserving our world history. Perhaps BMW R75 no. 750097 survives to remind us that war is wicked and brutal, and that by taking the high road today we — humankind — should do all we can to prevent future wars. In the meantime, let's also take the high road so that we can have some fun on the side with our sidecars, no matter what their origin. **MC**



# WORD ON THE STREET

## 2019 Triumph Street Twin

Story by Alan Cathcart

Photos by Alessio Barbanti, Matteo Cavadini  
and Francesc Montero

Three years ago, Triumph reinvented its entire Bonneville range of twin-cylinder retro-inspired models by presenting five new motorcycles powered by all-new liquid-cooled, parallel-twin engines — the 900cc Street Twin and four 1,200cc big twins. These were joined a year later by a revamped version of the Street Scrambler as the second model in Triumph's 900cc entry-level lineup.

Now, Triumph has introduced upgraded versions of both the Street Twin and Street Scrambler, which are essentially the entry-level models to its entire range. 17,500 examples of the Street Twin alone have been built and sold in the past three years, making it the British firm's best-selling model.

The chance to spend a 140-mile day riding both new Triumphs along the shores of the Atlantic Ocean from the resort of Cascais west of Lisbon, Portugal, before diving inland to the hills and valleys of the Portuguese countryside farther north revealed the noticeable step forward the new bikes represent over what was already a pretty good dynamic package.

Triumph likes to use the word "premium" a lot in its sales pitch for these bikes, and that's actually fairly justified. Though a mass-produced product made in its trio of factories in Thailand, the 2019 Street Twin seemingly has an extra level of refinement in its looks that's worthy of a more bespoke model, especially when viewed in the test bike's classy-looking new Matt Ironstone color. The latest design of 10-spoke cast aluminum wheels look like they came from the costlier end of the aftermarket, and the new dual seat is equally high end, with contrasting vinyl that looks like leather. The seat has been reshaped, and its height raised 0.4 inches to 29.9 inches thanks to thicker foam padding aimed at increasing comfort. But because the frame rails are pulled in, it still feels low and accessible for shorter riders.

At 5 feet 10 inches tall, I didn't feel at all cramped, because there's lots of room to move around. Sitting on it is a nice place to be, with an easy reach forward to the short, flat, one-piece handlebar, with adjustable brake and clutch levers. The riding position is relatively close-coupled, and the slightly pulled-back handlebar delivers a very relaxed riding stance. You feel very much a part of the Street Twin, and it's an untiring ride thanks to the complete absence of vibration at any revs from the revamped parallel-twin engine with its 270-degree crankshaft











and dual counter balancers, right up to the soft initial rev-limiter on the ride-by-wire throttle now activated at 7,500rpm, 500 revs higher than before. The retro-looking round mirrors give a good view, and don't vibrate, either.

### On the road

Thumb the clever combined kill switch and starter button to send the liquid-cooled engine into life, and as it settles to a 1,000rpm idle speed you can relish the glorious lilting note of the stock Street Twin exhaust. When it was first launched three years ago, it seemed improbable that Stuart Wood, Triumph's head of engineering, and his team could get such a good-sounding exhaust through Euro 4 compliance, but they did — and still have. Then savor the extremely light and ultra-controllable lever action of the cable-operated oil-bath slip/assist clutch, which makes riding in traffic or city streets completely untiring. Nice.

What's nicer still is the extra punch from the revamped



### 2019 STREET TWIN

**Engine:** 900cc liquid-cooled SOHC parallel twin, 84.6mm x 80mm bore and stroke, 11:1 compression ratio, 64hp @ 7,500rpm  
**Top speed:** NA  
**Fueling:** Multipoint sequential electronic fuel ignition  
**Transmission:** 5-speed, chain final drive  
**Electrics:** 12v, electronic ignition  
**Frame/wheelbase:** Dual downtube steel cradle frame/55.7in (1,415mm)  
**Suspension:** 41mm telescopic forks front, dual shocks w/adjustable preload rear  
**Brakes:** Single 12.2in (310mm) disc front, single 10in (255mm) disc rear  
**Tires:** 100/90 x 18in front, 150/70 x 17in front  
**Weight (dry):** 436.5lb (198kg)  
**Seat height:** 29.9in (760mm)  
**Fuel capacity/MPG:** 3.17gal (12ltr)/50-60mpg (est.)  
**Price:** Starting at \$9,300

The redesigned single round instrument features an analog speedometer, plus a digital panel that is accessed via an info button on the left handlebar (left).

900cc engine, not only in terms of extra power, but the broader spread of torque. The main disappointment with the 2016 version was that in obtaining Euro 4 compliance, the engine was detuned, with power down to 54 horsepower at 5,900rpm against 67 horsepower at 7,250rpm for the outgoing 865cc Euro 3 T100 Bonnie, three-quarters of the horsepower of the outgoing model. That it delivered 18 percent more torque than the T100, peaking as low as 3,230rpm, went some way towards compensating for the reduced horsepower. But still ...

Triumph has restored the status quo by extracting 64 horsepower at 7,500rpm from the 2019 model and has maintained the peak torque figure, spreading it out across the power band. The power band is broadened, too, the extra revs at the top end possible thanks to lighter engine internals and revised cam timing.

In real world riding you're unlikely ever to rev it that hard, however, and will instead surf the 900HT (for High Torque) engine's flat torque curve between 3,000 and 5,500rpm. You can

Writer Alan Cathcart aboard the new Street Twin in Portugal.







hold third or fourth gear for long stretches of winding country roads, then hit top gear on the 5-speed gearbox when you get to a straight section. The Street Twin will pull wide open in top gear from as low as 2,000rpm. At the other end of the scale, cruising at 80mph with the tach showing 4,200rpm makes this a very relaxed real world ride, and 70-80mph top gear cruising is where it's most at home. Five speeds in the gearbox is quite sufficient for something this torquey — I never caught myself looking for another ratio.

Having a choice of two different riding modes (Road and

Rain) on the 2019 bike is a welcome added safety feature. Each mode delivers full power, but with different throttle and fuel maps, and features varying degrees of ABS and traction control intervention. I could feel both those rider aids cutting in nice and early in Rain mode on the super-slippery damp Portuguese tarmac. You can easily switch between modes on the move by thumbing the Mode button on the left control pod, and there is indeed quite a noticeable difference between the two.

The Street Twin's handling is capable and confidence inspiring, thanks to its relatively tight steering geometry and short,

## Engine tech: The new 900

The uprated version of the liquid-cooled, 8-valve parallel-twin engine powering the 2019 Street Twin and Street Scrambler has an unchanged 84.6mm x 80mm bore and stroke for a capacity of exactly 900cc. As before, it has a 270-degree crank, which reproduces the sound, traction and perfect primary balance of a 90-degree V-twin.

But unlike its companion double overhead cam twin-cylinder 1,200cc models in the Triumph catalog, this smaller engine has just a single overhead camshaft, operated by a modular gear/chain drive up the center of the engine. The four paired, 28.4mm inlet valves are fed by a single 38mm Keihin throttle body that resembles a period carburetor. On the Street Twin, the 24.2mm exhaust valves exit burnt gasses into a pair of classic-type peashooter exhausts. In fact,

though, this is a very clever piece of what the French term *trompe l'oeil* — aka illusion. Behind what seems to be a pair of heat shields where the vertical header pipes curve round to run horizontally on either side of the sump, the exhausts turn inwards to meet the catalyst positioned under the engine, then exit again to rejoin the original line of the gently tapering upswept brushed stainless steel mufflers. The Scrambler incorporates its catalyst into the twin side pipes. The engine's prominent cylinder finning means the cylinders and head are partially air-cooled too, thereby reducing the requisite size of the radiator positioned between the front frame downtubes, so at a casual glance the engine does still appear to be air-cooled.

With its three-ring pistons delivering a raised 11:1 compression ratio (up from

10.55:1), the 2019 version of the so-called 900HT (High Torque) engine delivers an unchanged peak torque figure of 59ft/lb 570rpm higher than previously at 3,800rpm, but now more widely spread across the whole rev range. There's a claimed 18-percent greater peak power than before, with 64 horsepower on tap at 7,500rpm versus the previous version's 54 horsepower at 5,900rpm. This power has been obtained via a lighter crankshaft, balance shafts and clutch, all of which allow the engine to spin up faster. And beneath the new magnesium cam cover lies an all-new camshaft design that Triumph's chief engineer, Stuart Wood, says delivers a higher lift on both the inlet and exhaust cams, with a much longer duration on each, aimed at delivering that extra power and the greater spread of torque. — Alan Cathcart





55.7-inch wheelbase, an inch shorter than the 2016 model. The low center of gravity helps it ride bumps well on the angle, and it's really agile in flicking from side to side in a succession of turns, aided by the good leverage from that relatively wide handlebar. But best of all in terms of handling is that it now stops really well — not by adding a second front disc, but instead retiring the previous twin-piston Nissin front caliper in favor of a four-pot Brembo with considerable added bite. Sticking to a single disc not only speeds up the steering thanks to reduced gyroscopic effect, it also enhances suspension response, because of the reduction in unsprung weight.

In terms of handling, the biggest improvement of the



The new seat uses contrasting vinyl that looks a lot like leather (left). The new engine makes 64 horsepower at 7,500rpm.

2016 Street Twin over the old T100 was in the suspension. Triumph's chassis development guru David Lopez did a superb job, teaming with KYB/Kayaba's technicians to produce a twin-shock motorcycle with non-adjustable suspension damping front and rear that had a level of compliance worthy of a variable-rate mono-shock bike. That's maintained on the 2019 Street Twin, and it's even better thanks to the higher-specification 41mm cartridge fork now fitted, with the same rear end setup. While still non-adjustable, the fork is more compliant, as confirmed by

## 2019 Triumph Street Scrambler

Two years ago, Triumph launched its revamped modern Street Scrambler. In company with the Street Twin roadster, with which it shares the same engine package, the Triumph Street Scrambler

has been similarly updated for 2019.

This means it shares the same engine improvements and enhanced electronic rider aid features as the Street Twin. But in addition to the Road and Rain riding


modes, the Scrambler benefits from a third off-road mode that turns off the ABS and traction control completely (which can both be re-enabled on the move by holding in the mode button for one second), while delivering full power, but with a more progressive throttle response.

Brakes and suspension remain unchanged, as do the wire wheels shod with Metzeler Tourance dual-purpose rubber, still with a 19-inch front. And while dry weight is the same as the Street Twin, the steering geometry of the tubular steel frame is more relaxed, with a 25.6-degree rake for the same 41mm non-adjustable KYB/Kayaba fork and 4.3 inches of trail versus the Street Twin's 25.1 degrees of rake and 4.03 inches of trail. The wheelbase is also longer, at 56.9 inches, which combined with the 19-inch front wheel means the bike does understeer if you try to ride it like a café racer.

There are three new color options for the 2019 Street Scrambler, with Fusion White as the base model costing \$11,000 in the U.S., Cranberry Red at \$11,250, and a Matt Khaki and Aluminium Silver







More power, more torque, better handling, ride-by-wire throttle and ABS. What more could you ask for?

looking for manhole covers to test the damping. I was even more impressed than before by the way the uprated Triumph ate up the bumps.

It's impossible to ride the latest version of the Triumph Street Twin without coming away impressed at how easy it is to ride, yet how satisfying it is to be aboard it. Its enhanced styling, distinctive sound, and dynamic riding experience augmented by the addition of ABS and switchable traction control, plus the

choice of modes now offered via the ride-by-wire throttle, makes it a nice update of the modern reinterpretation of Triumph's most iconic model, now with the missing power restored.

The revised 2019 900cc Street Twin retails at \$9,300 including a two-year unlimited mileage warranty, and now comes in Jet Black, or the Matt Ironstone of the test bike and Korosi Red, both of which cost \$250 extra. It should be on dealers' floors in the U.S. by the time you read this. **MC**

two-tone paint scheme at \$11,500. Deliveries will commence in late January in the U.S.

Swapping back and forth between the Scrambler and the Street Twin in Portugal revealed them to have identical engine performance, but the Scrambler has softer power delivery thanks to altered mapping and the side-mounted exhaust. The exhaust looks cool, but does get in the way when you're standing up on the footrests for light offroad work on gravel trails. The handlebar is unchanged from the Street Twin, and it's really too low for serious offroad work. Plus, with just 4.7 inches of suspension travel front and rear like the Street Twin, the bike lives up to what it says on the label — as in, it's a STREET Scrambler! It's a cool-looking bike that owners will relish being seen on, with a spacious and relaxed riding position thanks to the higher seat and lower footpegs. The Street Scrambler is a model where convenience and cool is arguably more important to likely customers than actual performance.

The Street Scrambler's true natural habitat isn't anywhere offroad, but rather city streets. Especially traffic-clogged ones where you can use its easy clutch action, responsive but controllable throttle, light

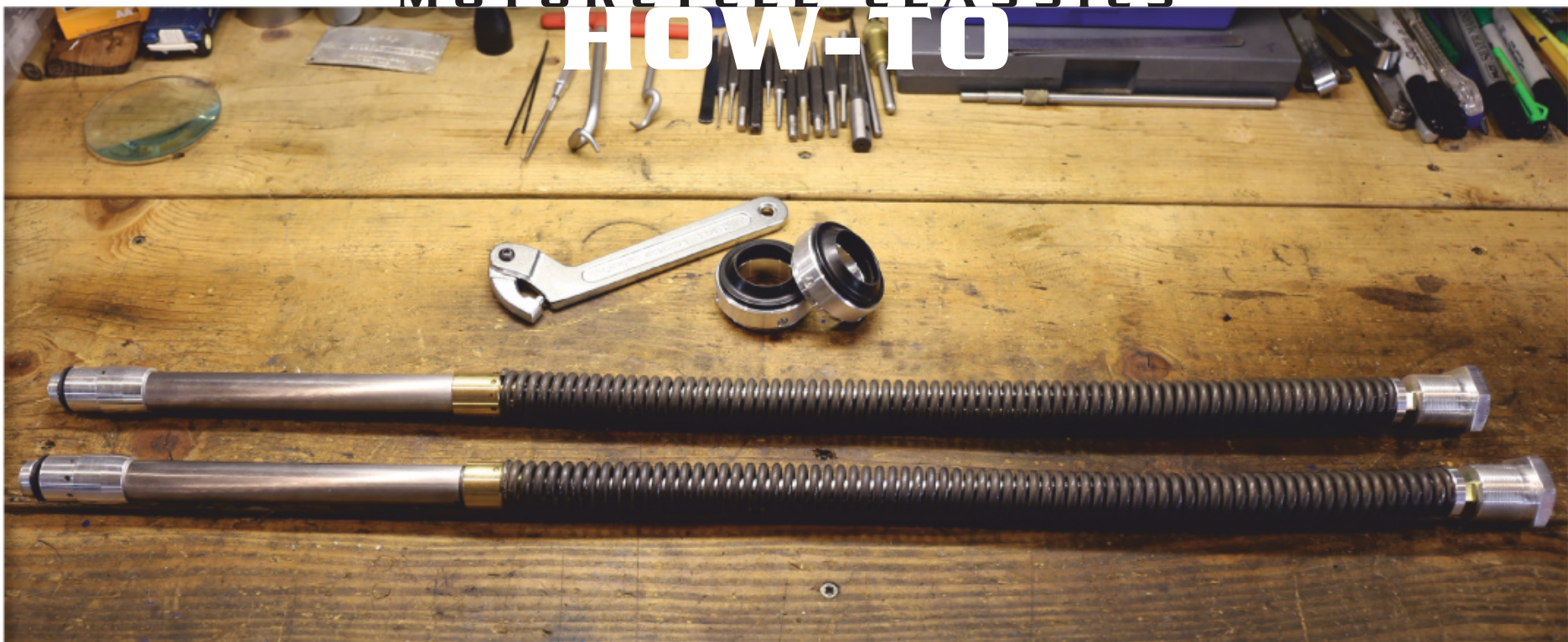


The Street Scrambler is a great city bike, with a light clutch and responsive throttle.

and immediate steering with that wide, 32.7-inch handlebar and the skinny 19-inch front tire, to plot an ideal course through rush-hour traffic with the help of the relatively tall, 31.1-inch-high seat.

Its height is perfectly judged to be just low enough to sling a leg over easily at rest, but just high enough to see over car roofs and plan where you're going once you're aboard. — *Alan Cathcart*





Lansdowne dampers as delivered, with springs. One-piece fork leg collar and dust boots are installed with supplied pin tool.

## Norton Commando Lansdowne adjustable dampers

In their day, Norton's Roadholder forks were among the very best. First introduced in 1946, they performed better than almost everything else on the market and influenced fork design for decades, but they do have their limitations.

A damping-rod design, Norton Commando Roadholder forks employ a rod-and-piston damping tube with fixed orifices to control oil flow to regulate compression and rebound. They work well enough, but the design doesn't allow tuning oil flow for different road and rider conditions.

About 10 years ago, U.K. Norton specialist John Bould designed the Lansdowne dampers (named after Norton founder James Lansdowne Norton). These feature multiple, small compression and rebound orifices, and an adjustable needle valve to vary oil flow. Further, Bould's approach employs a dedicated compression damper for one leg and a dedicated rebound damper for the other. The needle valve is attached to the top fork nut in a threaded brass insert and passes through the damper rod to the damper body. It's adjusted using a small, 2.5mm Allen wrench, turning the brass insert in the fork nut.

Bould passed away in January 2016, and that seemed to be the end of the Lansdowne damper until Norton enthusiast and specialty parts manufacturer Donald Pender of Triton Motorcycle Parts ([tritonmotorcycleparts.com](http://tritonmotorcycleparts.com)) in the Philippines secured the rights to continue their manufacture.

Our subject bike is Tech Q&A man Keith Fellenstein's 1974 Norton Commando 850. In addition to the dampers (\$360, plus shipping) we got a set of Triton's integrated fork leg collar/dust boots (\$46/pair plus shipping, includes installation tool) and a set of Leak Proof fork seals (\$22/pair plus shipping, [oldbritts.com](http://oldbritts.com)). Derided by some and loved by others, we've used Leak Proof seals with great success on a few Japanese bikes and thought it would be interesting to try them on the Norton.

This is a relatively straightforward project and easily within reach of the average weekend warrior, but budget a full day to

accommodate unexpected problems, like the broken fender-mounting stud we had to drill out of the left fork leg. Removing and disassembling the fork legs isn't technically challenging, and the Lansdowne units go in as easily as the old ones come out. We did hit one minor snag, however. After securing the new dampers in the fork legs, the right leg went together in minutes, but the fork tube for the left leg started binding up as we pushed it to the bottom of the fork leg. Further inspection showed that the tip of the fork spring for that damper wasn't trimmed square at the bottom end; it was snaggletoothed and catching the inside of the fork tube. To remedy this, we removed the damper assembly, removed the spring from the

damper, and then hand filed the protruding edge. Upon reassembly, we put the "damaged" end of the spring at the top where it would be fixed relative to the fork tube, just in case. It then went together without issue. For fork oil, we used Lucas 10w synthetic. *Note:* Do not mix parts between the compression and rebound dampers; they are not interchangeable.

With the Lansdowne dampers installed and adjusted to the suggested initial compression and rebound settings, we took the Norton out for a test ride, and the improvement in

performance over stock was immediately apparent. Ride quality is vastly improved, the forks no longer over-compressing on hard braking or over-extending on abrupt acceleration, and Keith's Norton feels planted in a way it never did before. In our first miles of mixed-use urban/rural riding we softened up the compression just a bit, adjusting the compression valve out counterclockwise a further half-turn, a quarter-turn at a time. Rebound is still as first set. We think it's a bit slow, and we'll play with it once we're satisfied we have the compression where we want it. Our conclusion? If you actually ride your Norton, the Lansdowne dampers are a highly recommended upgrade. You'll never look back.

As always, we recommend having a good shop manual on hand for parts identification and proper torque specs.



The Lansdowne dampers incorporate an adjustable needle valve into the fork nut.



# MOTORCYCLE CLASSICS

## HOW-TO



**1** Support the front of the bike with the front wheel off the ground. Remove the axle nut. Loosen the axle pinch bolt at the bottom of the left fork.



**2** Draw the axle out the left side and remove the wheel, making sure to collect the left and right side wheel bearing dust washers/spacers. Remove the nuts securing the right fender stay. Remove the two bolts securing the caliper to the right fork leg.



**3** Remove the caliper and wire it out of the way on the frame. Remove the rest of the fender-securing nuts and bolts. Remove the fender.



**4** If so equipped, pull the instrument boots down. Remove the instrument light bulb sockets. Unscrew the speedometer and tachometer cables.



**5** Using a 1-5/16-inch socket, loosen the top fork nut. Unscrew the nut completely.



**6** Push the fork leg up so the nut and the top of the damper rod and fork spring clear the instrument mount.



**7** With a 9/16-inch open-end wrench holding the fork spring retaining nut, use the socket to remove the fork nut. Collect the large washer and remove the instrument.



**8** Loosen the fork tube pinch nut on the lower steering yoke.



**9** Thread the fork nut back into the fork tube by at least five threads. Using a brass hammer or a block of wood and hammer, rap the nut hard to break the fork tube free of the upper steering yoke. Remove the nut.





**10** Pull the fork down and remove it from the steering yoke. Turn it upside down over a drain pan and drain out fork oil. Put the fork in a vise and loosen the damper rod-securing bolt at the bottom of the fork leg.



**11** Hold the fork over a drain pan, remove the damper rod-securing bolt, remove the damper and spring assembly, drain out any remaining oil.



**12** Put the fork back in the vise. Push the fork tube into the leg then pull up sharply so the lower fork bushing shocks the upper fork tube bushing and seal from the fork leg. It usually takes several tries. Clean the fork tube and leg.



**13** The Lansdowne damper uses a special securing bolt, washer and fiber gasket. Remove the bolt and washer from the supplied damper, but leave the gasket in place. The locating stub of the damper is slightly tapered. The fiber washer will hold to it and push fully in place when the damper is installed.



**14** Insert the damper assembly with fiber washer in place into the fork leg. Ensure the damper locating stub is correctly positioned in the fork leg. Install the bolt and washer and tighten.



**15** Remove the fork nut and needle valve from the damper assembly. It's hand-tight as delivered. If necessary, hold the nut at the top of the damper rod with a 17mm open-end wrench and remove the fork nut. Make sure to collect the spring underneath it, visible here.



**16** Slip the fork tube over the damper and spring assembly and insert the fork tube (lower bushing installed) fully into the fork leg. The bronze upper bushing is a press fit into the fork leg.



**17** With the fork right side up, push the bronze bushing into the leg, then drive it fully home. We used a section of 1-1/2-inch PVC pipe, chamfered at the end to fit inside the top of the fork leg, hitting it with a hard rubber mallet to drive the bushing in.



**18** Using the same technique, press the fork seal fully home. If you're using the stock seal, make sure to install the paper gasket first.



# Over 3,000 parts available!!



## 750 Four

CB750K series



YAMIYA ONLINE STORE

CB400FOUR series

SUPER SPORT

## 400 FOUR



[www.yamiya750.com](http://www.yamiya750.com)



MOTORCYCLE YAMIYA

PHONE / 81-52-452-7230 FAX / 81-52-452-7231  
E-mail / [info@yamiya750.com](mailto:info@yamiya750.com)



JAPAN QUALITY



Motorcycle Yamiya 闇矢屋

Please click "like" our facebook!  
Check out our new arrivals and special info!

Monthly Campaign!!

# SPECTRO

## Performance oils



## THE BEST OIL ON PLANET EARTH.



MADE IN THE USA

Since 1966

[Spectro-Oils.com](http://Spectro-Oils.com) | 800-243-8645 | [f](#) [i](#) [t](#) @SpectroOils





**19** We opted to use Triton's one-piece fork seal retaining nut/dust seal, which is tightened with a supplied pin wrench. For the stock retaining nut, tighten using a strap wrench and then install the dust boot.



**20** Install the fork leg assembly, pushing the fork tube up into the top yoke. Secure it by lightly tightening the lower pinch bolt. Slowly add 150ml of 10w fork oil. We used Lucas 10w synthetic fork oil. Let it settle.



**21** Lift the fork leg up to reveal the fork spring/damper rod. Place the instrument followed by the fork nut washer over the spring/damper. Insert and thread the Lansdowne fork nut/needle valve and spring into the damper rod. Tighten with a 17mm wrench on the spring nut and a 1-3/8-inch socket.



**22** Thread the Lansdowne fork nut into the fork tube. Reattach the speedo/tach cable and instrument lights. Hold the instrument in the desired location and tighten the fork nut fully. Norton specified a torque of 40ft/lb.



**23** Loosely install the front fender. Install the brake caliper and tighten the securing bolts. Norton specified a torque of 26ft/lb.



**24** Install the front wheel making sure the left and right wheel bearing dust covers are in place. Install the axle and axle nut and snug up but don't fully tighten the axle nut.



**25** Here's what you'll see once everything is back together. We ended up with rebound on the left and compression on the right. It doesn't matter which goes where.



**26** Using a 2.5mm Allen wrench, turn the adjusters clockwise until they just seat. You'll feel it. Next, turn the adjusters out 3 full turns. Apply the front brake and compress the forks 10 times. This primes the dampers with oil. Next, turn the adjusters back in until they seat. Turn the compression adjuster out 1-1/4 turn. Turn the rebound adjuster out 1/4 turn. This is your starting point.



**27** Finally, tighten the pinch bolts on the lower yoke, followed by the axle nut and then the pinch bolt on the bottom of the left fork. Do not overtighten this pinch bolt. Now it's time to ride. Experiment with small adjustments to rebound and compression, no more than 1/4 turn at a time until you find your sweet spot.



# HARBOR FREIGHT

QUALITY TOOLS AT RIDICULOUSLY LOW PRICES

1,000+ Stores Nationwide • HarborFreight.com

## PREDATOR BEATS HONDA

**SUPER COUPON**  
**BEST BUY WINNER**  
As voted by leading consumer product testing publications



### 3500 WATT SUPER QUIET INVERTER GENERATOR

3500	MAX. STARTING WATTS	3000
3000	RUNNING WATTS	2800
100 LBS.	WEIGHT	131 LBS.
2.6 GAL.	TANK SIZE	3.4 GAL.
4	OUTLETS	4
YES	OVERLOAD PROTECTION	YES
212 cc	ENGINE SIZE	196 cc
YES	LOW OIL ALERT	YES
YES	PARALLEL CAPABLE	YES
YES	POWER SAVER	YES



HONDA EU3000iS1A

PREDATOR 3500

Customer Rating

★★★★★

SAVE

\$1,299

~~\$769.99~~ PRICE **\$1,999**



68351471

LIMIT 3 - Coupon valid through 6/19/19\*

\*HONDA EU3000iS1A stated specs

## HARDY

### POWDER-FREE NITRILE GLOVES

PACK OF 100

• 5 mil thickness

12¢ PER PAIR

SAVE 59%

COMPARE TO VENOM

\$14.97

MODEL: VEN4145

ITEM 97581, 97582, 97583,

37050, 37051, 37052, 64417, 64418,

61363, 68497, 61360, 61359, 68498, 68496 shown



LIMIT 3 - Coupon valid through 6/19/19\*

## SUPER COUPON

Customer Rating

★★★★★

SAVE

\$7.99

NOW

\$5.99

COMPARE TO VENOM

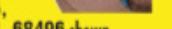
\$14.97

MODEL: VEN4145

ITEM 97581, 97582, 97583,

37050, 37051, 37052, 64417, 64418,

61363, 68497, 61360, 61359, 68498, 68496 shown



LIMIT 3 - Coupon valid through 6/19/19\*

## PITTSBURGH MOTORCYCLE

### MOTORCYCLE STAND/WHEEL CHOCK

Customer Rating

★★★★★

1800 lb. capacity

NOW

\$44.99

COMPARE TO BAXLEY

\$279.99

MODEL: FCYSTAM102

ITEM 61670/97841 shown



LIMIT 3 - Coupon valid through 6/19/19\*

## PITTSBURGH AUTOMOTIVE

### PNEUMATIC ADJUSTABLE ROLLER SEAT

Customer Rating

★★★★★

300 lb. capacity

NOW

\$19.99

COMPARE TO DURALAST

\$64.99

MODEL: TR6201C

ITEM 61160/61896/63456/46319 shown



LIMIT 7 - Coupon valid through 6/19/19\*

## PREDATOR

### 6.5 HP (212 CC) OHV HORIZONTAL SHAFT GAS ENGINE

Customer Rating

★★★★★

NOW

\$99.99

COMPARE TO HONDA

\$329.99

MODEL: GX200UTX2

ITEM 60363/69730

ITEM 69727 shown

CALIFORNIA ONLY



LIMIT 3 - Coupon valid through 6/19/19\*

## HaulMaster

### 3/8" x 14 FT. GRADE 43 TOWING CHAIN

Customer Rating

★★★★★

5400 lb. capacity

NOW

\$19.99

COMPARE TO MIBRO

\$64.99

MODEL: 426920

ITEM 60658/97711 shown



LIMIT 7 - Coupon valid through 6/19/19\*

## Central Pneumatic

### 3 GALLON, 100 PSI OIL-FREE AIR COMPRESSORS

Customer Rating

★★★★★

A. HOT DOG

ITEM 69269/97080 shown

B. PANCAKE

ITEM 61615/60637

95275 shown

YOUR CHOICE

\$39.99

COMPARE TO PORTER-CABLE

\$98.62

MODEL: PCFP02003

ITEM 61615/60637



LIMIT 6 - Coupon valid through 6/19/19\*

## BRAUN

### 5000 LUMENS LED HANGING SHOP LIGHT

Customer Rating

★★★★★

46-3/8"

NOW

\$19.99

SAVE 33%

\$29.99

ITEM 64410



LIMIT 6 - Coupon valid through 6/19/19\*

## drillmaster

### 1500 WATT DUAL TEMPERATURE HEAT GUN

Customer Rating

★★★★★

572°/1112°

NOW

\$8.99

COMPARE TO BLACK & DECKER

\$28.06

MODEL: HG1300

ITEM 62340/62546/63104/96289 shown



LIMIT 5 - Coupon valid through 6/19/19\*

## PITTSBURGH MOTORCYCLE

### DIRT BIKE STAND

Customer Rating

★★★★★

1000 lb. capacity

NOW

\$19.99

COMPARE TO BLACK WIDOW

\$49.99

MODEL: MX-STAND-ALUM-LITE

ITEM 67151



LIMIT 7 - Coupon valid through 6/19/19\*

## U.S. GENERAL

### 30", 4 DRAWER TECH CART

Customer Rating

★★★★★

12,600 cu. in. of storage

580 lb. capacity

Heavy duty gas struts hold lid open at 90 degrees

NOW

\$107.99

COMPARE TO SNAP-ON

\$799.95

MODEL: KR6C10TBC

ITEM 64818

64096 shown



LIMIT 5 - Coupon valid through 6/19/19\*

## CENTAL PNEUMATIC

### 12 VOLT DELUXE BATTERY MAINTAINER AND FLOAT CHARGER

Customer Rating

★★★★★

SAVE 62%

\$39.99

COMPARE TO BATTERY TENDER

\$98.62

MODEL: 022-0192

ITEM 61911/63161/62813 shown



LIMIT 5 - Coupon valid through 6/19/19\*

## HAULMASTER

### 72" x 80" MOVING BLANKET

Customer Rating

★★★★★

72" x 80"

NOW

\$5.99

COMPARE TO BLUE HAWK

\$19.99

MODEL: 77280

ITEM 69505/62418/66537 shown



LIMIT 6 - Coupon valid through 6/19/19\*

## HAULMASTER

### 72" x 80" MOVING BLANKET

Customer Rating

★★★★★

72" x 80"

NOW

\$5.99

COMPARE TO BLUE HAWK

\$19.99

MODEL: 77280

ITEM 69505/62418/66537 shown



LIMIT 6 - Coupon valid through 6/19/19\*

## HAULMASTER

### 72" x 80" MOVING BLANKET

Customer Rating

★★★★★

72" x 80"

NOW

\$5.99

COMPARE TO BLUE HAWK

\$19.99

MODEL: 77280

ITEM 69505/62418/66537 shown



LIMIT 6 - Coupon valid through 6/19/19\*

## HAULMASTER

### 72" x 80" MOVING BLANKET

Customer Rating

★★★★★

72" x 80"

NOW

\$5.99

COMPARE TO BLUE HAWK

\$19.99

MODEL: 77280

ITEM 69505/62418/66537 shown



LIMIT 6 - Coupon valid through 6/19/19\*

## HAULMASTER

### 72" x 80" MOVING BLANKET

Customer Rating

★★★★★

72" x 80"

NOW

\$5.99

COMPARE TO BLUE HAWK

\$19.99

MODEL: 77280

ITEM 69505/62418/66537 shown



LIMIT 6 - Coupon valid through 6/19/19\*

## HAULMASTER

### 72" x 80" MOVING BLANKET

Customer Rating

★★★★★

72" x 80"

NOW

\$5.99

COMPARE TO BLUE HAWK

\$19.99

MODEL: 77280

ITEM 69505/62418/66537 shown



LIMIT 6 - Coupon valid through 6/19/19\*

## HAULMASTER

### 72" x 80" MOVING BLANKET

Customer Rating

★★★★★



## “There’s a reason these gauges are often derided as ‘worry’ gauges.”

### Triumph troubles

**Q:** I have a 1979 Triumph T140E with 17,000 miles on it. I’m the second owner and it has been well maintained. However, I’ve been stumped by an issue lately that I hope you can help me with. The bike starts very easily and idles well. When I’m accelerating, say from a stop sign, it has a stutter and occasional mild backfire at approximately 2,000rpm. It clears up at 2,500-3,000rpm and runs strongly after that to higher revs. If I roll on the throttle slowly, it does not do it. If I accelerate briskly, it will. It started doing this one day when I noticed it stuttered once. Then a few days later it did it a few more times. Then later it did it all the time, as it is now. I’ve adjusted the valves, checked all the electrical connections, cleaned out the carbs half a dozen times, all to no avail. The battery is in good condition. One day I put a new plug into the right side cylinder, and the problem went away. But 10 miles later, it came back. When I inspect the right spark plug, it is more black and sooty than the left plug. Could I have a bad or weak coil? Is there a way to measure/check the coil to see if that is the issue? Any other things I should be checking? What can I do to find and cure this situation?

Steve Sullivan/via email

**A:** You can check the coil for primary and secondary resistance, but you may find it passes those tests only to keep acting up. That year had the Lucas Rita wasted spark electronic ignition, so the coils are run in series. Usually if one coil fails the whole ignition circuit quits working, although if one coil was shorting out instead of opening up, the other coil would continue to fire. Since it is wasted spark, and since you found that it improved with a new spark plug on the right side, it would be informative to swap spark leads from left to right coils and see if the problem moves to the other cylinder. The service manual for that year says to set everything by the left plug, and notes that the right plug will almost always be darker.

### Flat battery

**Q:** I have a 1967 BSA Spitfire. I’m continually having problems with the battery,



Ready to take your classic queries: Old-bike mechanic Keith Fellenstein.

as using the headlight seems to be flattening the battery. What upgrades do you advise?

James Wootton/via email

**A:** Since daylight headlights were not required when your bike was built, the charging system was set up to keep the battery well charged with the headlight off, and slightly discharging with it on, on the assumption that most of the running would be in daylight hours and so the battery would be maintained. First of course is to make sure your battery is in good condition, and if it isn’t, replace it with a good battery. I prefer AGM batteries for my classics for their superior energy density and long life. An added bonus is you never have to worry about acid leaks damaging paint or chrome. There were two different alternators used, a two-wire and a three-wire. If you have the three-wire alternator, make sure the green/black and green/yellow wires are joined together to the green/yellow wire in the wire loom. That provides the maximum power output from the alternator. As usual, there are a number of ways to avoid flattening the battery and/or getting more power out of the alternator. You could switch the headlight and taillight bulbs from incandescent bulbs to LEDs, being careful to source LEDs that are made for positive ground. That’s probably the fastest and least expensive method, but

may not completely fix the problem. Slightly more expensive would be replacing the two-part rectifier and zener diode regulator with a one-piece combination rectifier/regulator, which may provide a more efficient conversion of AC to DC, but again may not completely fix the problem. The most expensive method would definitely fix the problem, and would consist of replacing the rotor with a new and presumably more magnetic rotor, the single phase stator with a three-phase stator, and the regulator/rectifier with a three-phase version. That would certainly provide enough output to keep the battery charged and the lights on.

### Gauge additions

**Q:** Keith, I enjoy reading your responses to questions, and I would like your advice on my 1981 Suzuki GS1000G. I am now retired and hope to make some trips in the Midwest with this bike. I have always been a believer in engine monitoring gauges in my vehicles. From time to time I see an oil pressure gauge added and some older Brit bikes have an ammeter. Gauges on my radar are oil pressure, oil temperature, voltmeter and maybe a cylinder temperature gauge. What is your advice on adding gauges to this bike?

Dwight Plucker/via email

**A:** For the most part, the more information you have the better, but there’s a reason these gauges are often derided as “worry” gauges. Your bike has made it to 2019 from 1981 without any accessory gauges fitted. Of the ones you list, I think the oil pressure gauge would be the most informative, and likely to save you major dollars in the event of oil pressure loss. The others would be fun to look at, but would just be more things to take your eyes off the road. Of the bikes in my collection, I only have an added oil pressure gauge on my Trident, because on it the oil pressure warning light is more like an indication that engine damage has already occurred.

Email questions to  
keithsgarage@motorcycleclassics.com



**STEIN  
DINSE**



*For a perfect start into the season!*

Available  
again!

**Cylinders, pistons  
& more...**



**OUR LOCAL  
MOTO GUZZI PARTNER:**



**MG CYCLE**

601 Ogden Ave,  
Albany, WI. 53502 USA  
+1 608-862-2300  
info@mgcycle.com



**Moto Guzzi**

**Ducati**

**Aprilia**

**Brembo**

**Dellorto**

**Accessories**

Benedikt Viro

| 0049 531 123 300 41

| BViro@stein-dinse.com

**www.stein-dinse.com**

## Making Custom Spokes... It's what we do!

We swage, cut, head, bend  
and thread every spoke we  
make to suit each specific  
custom application, using  
only American milled and  
certified wire. Take  
advantage of our expert  
wheelsmithing services  
when you ship us your hub.

phone: 626.969.4655

fax: 626.812.0243

buchananspokes.com

**BUCHANAN'S**  
Spoke & Rim, Inc.

Est. 1958



Azusa, CA

Your source for Excel, Borrani and Sun Rims



# Shoei Neotech II helmet, Diamond Gusset women's jeans and Aerostich riding shorts

## Shoei Neotech II modular helmet

I've spent almost a year with my Shoei Neotech II modular touring helmet, and it's gradually become my first choice for all my riding except extended gravel roads, offroad trails and extreme cold (below 25 degrees F). As a creature of habit — 60-plus years' worth — it took me a little while to get used to the securely snug fit, micro-ratchet chin strap, pin-lock fog-resistant lens insert and blunt shape. It also took me a bit to train my gloved hand not to open the flip-up face when what I was after was the lower front vent. Compared with my older dual-sport helmet, this thing was a modern rocket, and I'm no rocket scientist. But I am teachable, and it only took me five minutes to understand why the Shoei's features were worth engaging.

**What I Like:** I love the helmet's snug fit. It isn't annoying or painful; it is reassuring, like a good hug. The helmet is so much quieter than my dual-sport helmets, so much so that when I wear them, I think there is something wrong with whatever bike I'm riding because it seems so noisy. Unlike my other helmets, I do fine without ear plugs with the Shoei. Initially perplexed by the opening face cover, I quickly fell in love with it. I could have a decent conversation with it flipped up — and I could don and remove the helmet without removing my glasses. At 4 pounds and a bit, the Shoei doesn't seem heavy. At 75mph in the Kansas wind, the Neotec II's aerodynamic design shines, my head no longer get-



ting yanked about. The well-placed vents flow air nicely through the helmet — it was comfortable at 95 degrees and at 15 degrees (except for some fogging issues — see below), and the micro-ratchet strap is very easy to work, even with all but my heated winter gloves on. In the rain, virtually no water gets into the helmet, nor down my neck, and the padding is easy to remove for washing and easy to reinstall. The sun shield is easy to flip down and back up with gloves on. I really like this helmet.

**What I Don't Like:** The major issue for me with the Shoei Neotech II is fogging at temperatures in the 20s and below. Even with the lower front vent and top rear vents wide open, I need to control my breathing to keep the fog to a manageable level. So on really cold mornings I choose my old dual-sport helmet because I can crack open the face shield a few millimeters to the first lock, whereas with the Shoei, the first lock has the shield about a centimeter open, which makes my eyes water from the cold air. I have not tried it in the cold with the chin curtain removed, but this might help.

**Last Thoughts:** At about \$700 on the street, the Neotech II isn't cheap — but quality rarely is, and you have only one head. As a creature of habit, I would say that I am now fully converted to modular helmet design with the quality and care the Shoei imbues. And the Neotech II is worth every penny to me for the fit, convenience (for glasses wearers) and most especially the quiet and aerodynamic features. Solid colors: \$699/Graphics: \$799. More info: shoei-helmets.com — *Hank Will*



## Diamond Gusset Women's Defender motorcycle jeans

For women riders, finding the right riding gear can sometimes be a challenge. I'm new to motorcycling, so far enjoying riding two-up with friends, and hoping to take the rider safety class this spring and get my license. The folks around here are serious about safety, which was getting me worried about the thin, skinny jeans I was tucking in my boots when I rode, so I was happy to discover Women's Defender jeans after meeting the Diamond Gusset crew at the 2018 Barber Vintage Festival.

I picked up a pair, and gave them a test drive once I got home. First, these are made of heavy-weight, dark blue denim with Kevlar panels sewn in on the bum, hips and knees, but (eureka!) they are wash-and-wear like regular jeans. And while the Kevlar seams do show on the exterior,

they're attractive. Key to these jeans' comfort is a diamond-shaped gusset in the center of the crotch, which gives the seat a totally relaxed and comfortable fit that's complemented by the straight leg and overall relaxed style.

Other assets include a wrap strap at the ankle to secure the pant leg around any style of boot, a deep side pocket perfect for any cell phone, and a D-ring at the waist above the right pocket for odds and ends. Exchanges are easy if you have any fit issues (my first pair didn't fit quite like I wanted), and they're covered by a 30-day satisfaction guarantee and a 90-day materials and workmanship warranty. Highly recommended for women who pilot or ride two-up. \$135.45. Available in woman's 27-45 waist and 28-35 length. More info: gusset.com — *Jean Denney*



“They turned a seat barely comfortable for 45 minutes into one I sat on for hours.”

**Aerostich riding shorts**

We’ve all had bikes with uncomfortable seats, and if you like to ride more than a couple of hours at a time, there’s a good chance your stock seat leaves you in some sort of pain by the time you stop for fuel. Riding shorts might seem like an odd thing to consider adding to your kit of riding gear, but hear us out: A pair of riding shorts is a lot more affordable than adding that custom-made seat you’ve been eyeing.

When I bought my 2006 Suzuki V-Strom 650 awhile back, it had the original, stock seat. The cover was in good condition, and the foam felt soft and comfy on my short test ride before I bought the bike. But after a few longer rides, I quickly discovered we weren’t going to get along. Sometimes rides as short as 45 minutes had me hurting. The soft foam had just gotten softer over time, and at times it felt like I was sitting on the seat pan. And then there were the hot spots and muscle cramps that came



with it. When I bought the bike, I had a nice weekend trip planned and it was coming up quick, but no way was I riding on that seat. So why not try a pair of padded shorts?

Aerostich’s Riding Shorts aren’t anything new. In fact, they’re similar to padded shorts bicyclists have used for years. At 6 feet 3 inches and 150 pounds I’m thin, which means I’m short on natural padding to begin with. I ordered a size medium, and they fit snugly, as you want them to. Made of fleece and Lycra with foam padding in the front and rear, the Aerostich shorts add cushioning while providing wicking to keep you dry, and they don’t bunch up like cotton shorts often do under your riding pants.

So how do they work? Beautifully. They turned a seat barely comfortable for 45 minutes into one I sat on for 6-plus hours, several days in a row, no problemo. The only downside is they don’t have a fly, so keep that in mind for roadside stops. Available in black in sizes S-XL. \$47. More info: aerostich.com — Landon Hall

**Motorcycle**  
CLASSICS

**FREE INFORMATION  
FROM OUR ADVERTISERS**

**Please circle the number(s) on the attached Reader Service Card to indicate the information requested. Information is free unless otherwise indicated on this page.**

**DISPLAY**

**PAGE**

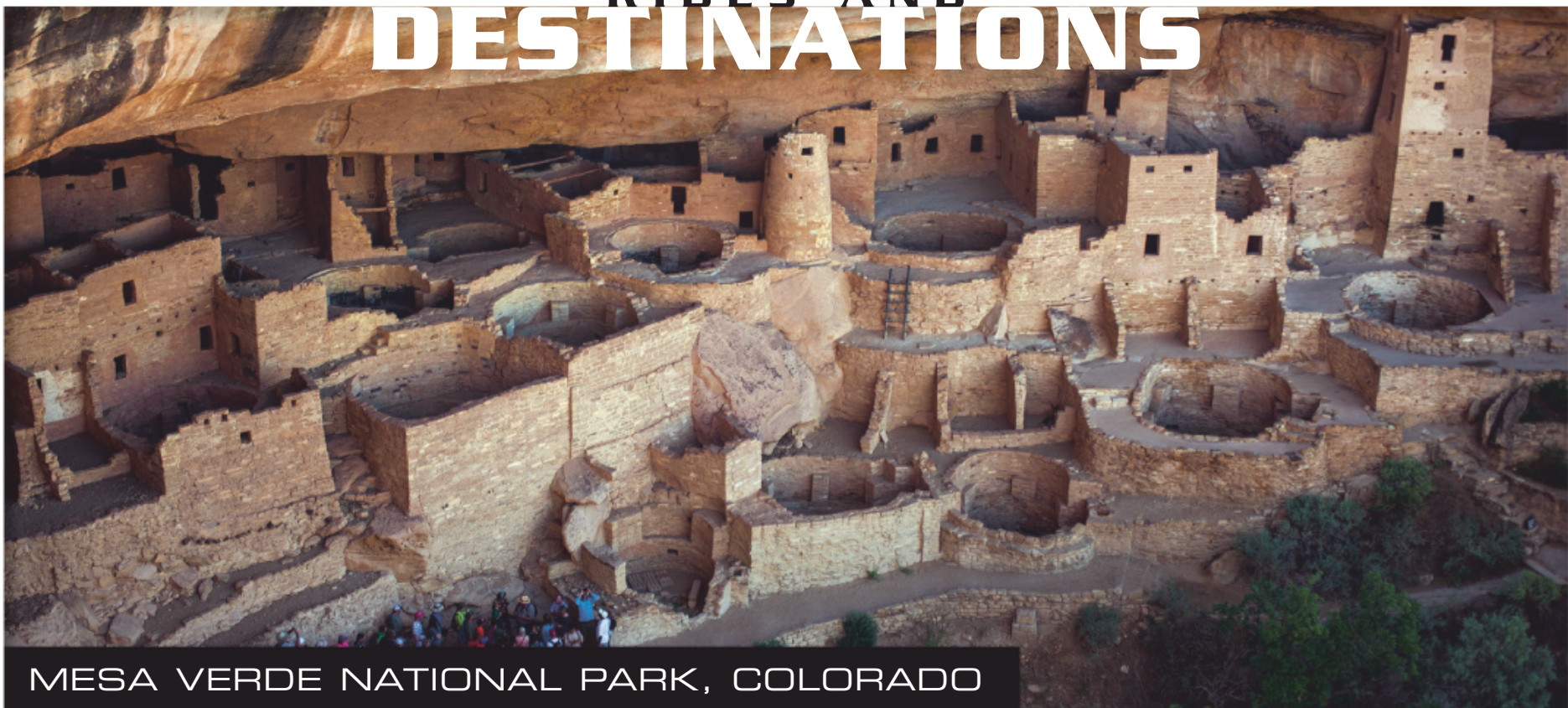
<b>1. Baxter Cycle .....</b>	<b>88</b>
<b>2. Donelson .....</b>	<b>88</b>
<b>3. Kinetic Fuel .....</b>	<b>85</b>
<b>4. National Motorcycle Museum .....</b>	<b>83</b>
<b>5. Pecard Leather Care Co .....</b>	<b>88</b>
<b>6. Race Tech .....</b>	<b>83</b>
<b>7. Rick’s Motorsport .....</b>	<b>88</b>
<b>8. Vanson Leathers .....</b>	<b>85</b>

**IFC = Inside Front Cover**  
**OBC = Outside Back Cover**

**IBC = Inside Back Cover**  
**Expires April 30, 2021**



# RIDES AND DESTINATIONS



## MESA VERDE NATIONAL PARK, COLORADO

**N**estled in southwest Colorado's Montezuma Valley, Mesa Verde rises to a majestic 8,500 feet. You can see New Mexico from up there, and while the ride and the scenery are magnificent, the real attractions are the Pueblo archaeological ruins. Native Americans inhabited Mesa Verde from 550 to 1300 A.D., spending most of that period living and farming on top of the mesa. During the last 100 years of that span, the ancestral inhabitants then built and lived in cliff dwellings below the top of the mesa. And then, within two generations, the Pueblo Native Americans abandoned Mesa Verde, leaving behind approximately 600 cliff dwellings and 4,700 archeological sites. Those who know say there are more yet to be discovered.

The first Mesa Verde explorations occurred in the 1700s, when Spanish explorer Don Juan María de Rivera encountered the area. Nearly a century later, geologist Dr. John Newberry led an expedition here. Local miner John Moss next led photographer William Jackson

into Mesa Verde, more people followed, and still more ruins were discovered. Local rancher Richard Wetherill actively explored the region, collecting artifacts for the Colorado Historical Society. In the early 1890s, Swedish archaeologist Baron Gustaf Nordenskiöld commandeered more antiquities for a museum in Sweden, where they still reside.

Interest in designating Mesa Verde as a national park and protecting its antiquities increased in the early 1900s. After voting down five successive bills for National Park designation, Congress finally approved the sixth and Theodore Roosevelt signed it in 1906. That same year, Congress passed the 1906 Antiquities Act, making it a federal crime to loot or damage any object of historical interest on federal land. In 1932, Franklin Roosevelt sent in the Civilian Conservation Corps to further develop the area. In the late 1950s and 1960s the Wetherill Mesa Archaeological Project was one of the biggest archaeological explorations in U.S. history, and in 1972 the Wetherill Mesa area was opened to

the public. 1978 brought UNESCO World Heritage Site designation. In 2006, all Native American human remains and related burial site artifacts were reburied in an undisclosed park location under the supervision of Hopi Native Americans.

The ride into Mesa Verde National Park is dramatic, with a long twisting climb to the park's two major areas: Chapin Mesa and Wetherill Mesa. There are over 40 miles of roads through Mesa Verde National Park, with numerous scenic turnouts on the ride up. Once on top of Mesa Verde, separate roads meander through both the Chapin and Wetherill Mesas. From vantage points along these roads you can see and photograph amazingly well-preserved ancient structures tucked beneath overhangs in the cliff walls. There are tours guided by U.S. Park Rangers down into these areas, and tickets are available at the Mesa Verde Visitor Center. You should be in good shape for the tours, as there are many steps along the stairs down to and back up from the structures. The best place to stay for a visit is in nearby Cortez. — *Joe Berk*



Structures tucked beneath a cliff overhang.

## THE SKINNY

**What:** Mesa Verde National Park, P.O. Box 8, Mesa Verde National Park, Colorado, 81330, (970) 529-4465.

**How to Get There:** Mesa Verde National Park is an 11-hour ride from Los Angeles. Pick up I-40 East in Barstow and stay on it to Flagstaff. Take US 89 North (a glorious ride) to US 160 East. From anywhere else in the U.S., you'll want to find your way to the southwestern corner of Colorado near the Four Corners area of Utah, Colorado, New Mexico and Arizona.

**Best Kept Secret:** The Farm Bistro restaurant in nearby Cortez, Colorado (their veggie burger is the best I've ever had). Cortez has many good hotels and restaurants.

**Avoid:** The winter months. It's cold up there! Visit mid-spring to mid-fall.

**More Photos:** [bit.ly/mesa-verde-np](http://bit.ly/mesa-verde-np)

**More Info:** [nps.gov/meve/index.htm](http://nps.gov/meve/index.htm)



Generations of Motorcycling History

Over **500** MOTORCYCLES on Display

## PLAN YOUR TRIP TODAY!

**WWW.NATIONALMCMUSEUM.ORG**

102 Chamber Drive, Anamosa, Iowa 52205 • 319-462-3925

THE NATIONAL MOTORCYCLE MUSEUM IS A NON-PROFIT 501(C)(3) CORPORATION.

**OPEN DAILY!**  
YEAR 'ROUND

Circle #4; see card pg 81

### MODERN TECHNOLOGY FOR VINTAGE MACHINES

**G-3S Custom Series Shocks**

- Custom Built to Order
- Made to Any Length
- Choice of Features
- Color Options

Made in U.S.A.

**Race Tech Hi-Performance Fork Springs**

- Springs available in a variety of Spring Rates.

**Fork Gold Valve Emulators®**

Gold Valve Cartridge Emulators offer Adjustable Damping!

**TKN Fork Tubes**

Made in Italy. Call or go to the website for your application.

**Brake Arcing**

Greatly Improves Drum Brake Stopping Power!

**RACE TECH VINTAGE SUSPENSION**

racetech.com | 951.279.6655

Circle #6; see card pg 81

Classic Motorcycle Day

British • European • Japanese

formerly BRITISH & EUROPEAN

NEW FORMAT: BRITISH • EUROPEAN • JAPANESE

NEW LOCATION: MOUNT AIRY, MARYLAND

— SUNDAY —

# MAY 19

— 2019 —

**BRITISH, EUROPEAN AND JAPANESE CLASSIC MOTORCYCLE SHOW & SWAP MEET**

FEATURED MARQUE: TRIUMPH

AMA SANCTIONED

**MOUNT AIRY, MARYLAND CARNIVAL GROUNDS**

ADMISSION: \$10 • 10:00 am to 4:00 pm • RAIN OR SHINE • VENDOR SPACES \$40

**FOR ALL CLASSIC BRITISH, EUROPEAN AND JAPANESE MOTORCYCLES BUILT THROUGH 1983**

web: [www.classicmotorcycleday.org](http://www.classicmotorcycleday.org) email: [events@classicmotorcycleday.org](mailto:events@classicmotorcycleday.org)

## GOT RUST? NO PROBLEM

### Skat Blast Cabinets Remove rust & paint FAST!

**Easy to Use:** Just insert rusty or painted parts and place on work screen. Close door, pick up part with one hand, and aim power gun. Each time power gun is activated, rust, paint & corrosion are removed **Fast & Easy** leaving a beautiful satin finish on your part ready for painting or other final prep. Abrasive drops to funnel bottom where it is automatically recycled into pickup tube & up to gun. Powerful Vac-50 Vacuum provides excellent visibility. There is **NO DUST** or **MESS**. You always have a clean shop, as blast is confined inside cabinet.

**USA-976**

**Fully Assembled Blast Cabinet**

**58" Wide, 28"d, 34 1/2"h work area**

**SALE**

- 11-18 ga steel
- HEPA Vacuum • Foot-pedal gun
- 28"L gloves • 12" x 45" lens
- 3 nozzles • 2 adj 90 watt floodlights • 2 side-loading doors • 50 lbs abrasive • Recycles
- Requires 10-15 cfm air

**#976 \$1799**

**FREE SHIPPING**

DC, DE, IL, IN, KY, MD, MI, NC, NJ, NY, OH, PA, TN, VA, and WV. **Reg \$220**

**TRUCK FREIGHT** See website for shipping to other states. Direct Pts only.

Sale ends 3/31/19

**TP TIP TOOLS & Equipment**

Canfield OH 44406  
1-800-321-9260

[www.tptools.com/mc](http://www.tptools.com/mc)

Free 172-pg Catalog



# CALENDAR MARCH/APRIL

## Don't miss these upcoming events!



Last year's Exhibitors' Choice award at the Modern Classics show went to this survivor 1905 Reading Standard, shown by Doug Strange.

**3/2** Back for its ninth year, check out the Modern Classics Motorcycle Show. This year, in addition to a great collection of bikes from the 1960s through the 1990s, the show will also look back 50 years, featuring a selection of 1969-model motorcycles. Check out the Friday Night Modern Classics Kickstart Party from 7-10 p.m. at the show's home, Martin Motorsports in Boyertown, Pennsylvania. On the web at [martinmoto.com](http://martinmoto.com)

**3/8** This year marks the 78th Anniversary of Daytona Bike Week, which runs March 8-17, in Daytona Beach, Florida. The racing kicks off on Saturday night, March 9, with the Daytona Supercross. The American Flat Track series Daytona TT runs on Thursday, March 14. The 2018 Daytona 200 takes place on Saturday, March 16, featuring American Sportbike Racing Association's (ASRA) 600cc sport bikes racing on Daytona's famed road course. For more info, schedules and specific locations of activities visit the Bike Week site. On the web at [officialbikeweek.com](http://officialbikeweek.com)

**3/16** Visit Rapid City, South Dakota, for the 31st Annual Black Hills Motorcycle Show, March 16-17, at the Rushmore Plaza Civic Center. There are more than 20 judged classes, plus a People's Choice award. On the web at [blackhillsmotorcycleshow.com](http://blackhillsmotorcycleshow.com)

**4/26** Head to Willow Springs International Raceway in Rosamond, California, for the Corsa Motoclassica, April 26-28. Rounds 7 and 8 of the AHRMA Historic Cup Roadrace Series will be Saturday and Sunday. There's a vintage bike show on Saturday and a swap meet both days. On the web at [willowspringsraceway.com](http://willowspringsraceway.com)

**4/27** The Washington Vintage Motorcyclists are putting on the first Northwest Motorcycle Classic, a classic and vintage motorcycle expo on Saturday, April 27, at the Northwest Washington Fairgrounds in Lynden, Washington. There will be a vintage and classic motorcycle display, swap meet, bike auction, dealers, vendors, experts and clubs, demos and more. On the web at [washingtonvintagemotorcyclists.org](http://washingtonvintagemotorcyclists.org)

*Motorcycle Classics wants to know about classic motorcycle shows, swap meets, road runs and more. Send details of upcoming events at least three months in advance to [lhall@motorcycleclassics.com](mailto:lhall@motorcycleclassics.com)*

**Mar. 2-3** — 29th Annual Super Show and Swap Meet. Colorado Springs, CO. [pro-promotions.com](http://pro-promotions.com)

**Mar. 3** — Walneck's Swap Meet and Show. Princeton, IL. [walneckswap.com](http://walneckswap.com)

**Mar. 8-9** — AMCA 2019 Sunshine Chapter National Meet. New Smyrna Beach, FL. [sunshineamca.org](http://sunshineamca.org)

**Mar. 8-9** — Vintage Motorcycle Alliance 8th Annual International Vintage Motorcycle Swap Meet and Bike Show. Eustis, FL. [vintagemotorcyclealliance.com](http://vintagemotorcyclealliance.com)

**Mar. 8-10** — AHRMA Road Racing at NOLA Motorsports Park, New Orleans, LA. [ahrma.org](http://ahrma.org)

**Mar. 15-17** — 16th Annual Inland Northwest Motorcycle Show and Sale. Spokane, WA. [spokanemotorcycleshow.com](http://spokanemotorcycleshow.com)

**Mar. 17** — 47th Annual Kalamazoo Motorcycle Swap Meet. Kalamazoo, MI. [kalamazooswap.com](http://kalamazooswap.com)

**Mar. 23-24** — Idaho Vintage Motorcycle Club 43rd Annual Vintage Motorcycle and Bicycle Rally & Show. Caldwell, ID. [idahovintagemotorcycleclub.org](http://idahovintagemotorcycleclub.org)

**Mar. 24** — So-Cal Cycle Show and Swap Meet. Long Beach, CA. [socalcycleswapmeet.com](http://socalcycleswapmeet.com)

**Mar. 29-31** — AHRMA Road Racing at Carolina Motorsports Park. Kershaw, SC. [ahrma.org](http://ahrma.org)

**Mar. 29-31** — Giddy Up Vintage Chopper Show. New Braunfels, TX. [www.giddyuptx.com](http://www.giddyuptx.com)

**Apr. 7** — Eurobike 2019. Raleigh, NC. [eurobikeraleigh.com](http://eurobikeraleigh.com)

**Apr. 12-14** — The Handbuilt Motorcycle Show 2019. Austin, TX. [revivalcycles.com](http://revivalcycles.com)

**Apr. 20** — 16th Annual Cadillac Swap Meet. Cadillac, MI. [cadillacswap.com](http://cadillacswap.com)

**Apr. 24-28** — 37th Annual Laughlin River Run. Laughlin, NV. [laughlinriverrun.com](http://laughlinriverrun.com)

**Apr. 26-27** — AMCA National Meet Perkiomen Chapter. Oley, PA. [antiquemotorcycle.org](http://antiquemotorcycle.org)

**Apr. 28** — So-Cal Cycle Swap Meet. Long Beach, CA. [socalcycleswapmeet.com](http://socalcycleswapmeet.com)

**Apr. 28** — Jeff Williams Motorcycle Swap Meet. Kansas City, MO. [jwswapmeet.com](http://jwswapmeet.com)

**Apr. 28** — Walneck's Swap Meet and Show. Woodstock, IL. [walneckswap.com](http://walneckswap.com)



# SPEED MOTO CO

CAFE RACER RAT BIKE  
COOL & RETRO PARTS

TRANSFORM YOUR MOTORCYCLE!

**SPEEDMOTOCO.COM**

EMAIL:  
shop@speedmotoco.com

TEXT: 541-357-9295 CALL: 541-687-6400

*"When the time is right...  
will you be ready?"*

Fire it up with KickMagic!  
pneumatic starter kits

- EASIER kick starting
- SAFER with no kickbacks
- FASTER engine starting RPMs

Created & built by The Classic Bike Experience in Essex, Vermont

**KickMagic**  
For vintage Triumph owners  
who want some extra 'umph  
in their kickstart!

Phone: 802.878.5383

**KICKMAGICSTARTER.COM**

## The First Vanson Still Available Today!

The Model 'A' was  
designed back in 1974,

Much thinking and  
personal riding experience  
went into the engineering  
and refinement of the  
**Vanson 'A'** jacket.

**An enduring and  
timeless design!**

- Action Back
- Dipped Back and  
Kidney Panel
- Full Length Action Back
- Snap-Back Mandarin Collar
- Brass Hardware
- Underarm Gusset
- Leather Windflap



(508) 678-2000  
www.vansonleathers.com

We Make Water Burn!™



### Prevent Fuel Problems!

- Eliminates water from fuel systems
- Increases power & performance
- Lubricates & cleans
- Stabilizes fresh fuel & revitalizes old fuel



Eliminating water in fuel  
systems since 1965



**800.530.6935**

**K-100.COM**





## New Stuff for Old Bikes

From keeping your bike clean to riding in comfort, here are six new products every classic bike fan should know about.



### Spectro Shine silicone finish

Spectro Performance Oils has introduced a new silicone-based “Wash and Shine” spray-on finish for motorcycles that Spectro says was formulated to create a long-lasting barrier for dirt and mud. Although it is a cleaner/polisher, Spectro says it works best to clean your bike first, then treat it with Shine to create a barrier to keep road grime, bugs, grease, dirt and mud from adhering to treated surfaces. If it’s like every other Spectro product we’ve used, you can bet it’ll work as claimed. \$10.99/12oz. More info: [spectro-oils.com](http://spectro-oils.com)



### All-in-one chain tool

The motorcycle tool specialists at Motion Pro have introduced the best chain tool we’ve ever used. The new PBR Tool (Press-Break-Rivet) features a changeable anvil block that’s placed in different positions in the tool body depending on whether you need to press, break or rivet a chain. Indexing letters on the anvil and tool body make setup a snap, and it works with rivet hollow nose and soft nose master link pins on O-ring and non-O-ring chains. \$96.99. More info: [motionpro.com](http://motionpro.com)



### Highest byways

This cool interactive listing of the highest roads by state in the U.S. is worth bookmarking on your phone. If you happen to find yourself riding across, say, Utah (fifth-highest road in the U.S.), a click on the listing will bring up a map and another click will get you directions from wherever you are. There’s no app, but it’s simple and fun, and just might direct you to some great roads on your next tour. More info: [geotab.com/americas-highest-roads](http://geotab.com/americas-highest-roads)



### YSS RE302

Last issue we tested three rebound-adjustable shocks for the BMW K75. Sampled but not reviewed at that time was the YSS RE302, an economical alternative featuring preload adjustment only. Following our tested trio, we installed the RE302 and were highly impressed with its performance. Main differences between it and the issue-tested YSS MZ366 are a smaller, 12mm shaft (16mm on the MZ366) and smaller shock body. Yet with preload properly set, it performed far better than a stock Boge, and for the money it’s a bargain. \$219. More info: [epmperf.com](http://epmperf.com)



### Lucas synthetic fork oil

California-based Lucas Oil Products is one of the best-known specialty oil manufacturers in the U.S. In addition to a proven line of racing and gear oils, Lucas has a full line of motorcycle products, including chain lube, octane booster, primary oil and synthetic fork oil. We used Lucas’ 10w High Performance Synthetic Fork Oil in our Norton fork upgrade (see Page 72), as it’s formulated to prevent foaming, a common problem in damping-rod forks, and prevents seals from hardening. \$6.39/16oz bottle at [denniskirk.com](http://denniskirk.com). More info: [lucasoil.com](http://lucasoil.com)



### Viking Cycle Ironborn jacket

We had a chance to sample Viking Cycle’s new Ironborn textile jacket before winter set in and can tell you it’s a great three-season riding jacket. Features include ample pockets inside and out, adjustment for fit at the wrist, elbows and waist, and a zip-out insulated, water-resistant liner. Reflective materials aid visibility and removable CE-rated armor in the elbows, shoulders and spine provides additional safety in the event you make contact with the pavement. Available in black or gray/black (shown), Small to 3XL. \$79.99. More info: [vikingcycle.com](http://vikingcycle.com)



# TOOL BAGS

HAND CRAFTED IN VIRGINIA

Stocked in 3 Sizes and 4 Colors  
Call for Custom Options!



Price  
Starting at  
\$56

## FoxCreek

LEATHER

AMERICAN MADE

800-766-4165  
www.foxcreekleather.com/mc

www.elektronik-sachse.de

# ELEKTRONIK SACHSE MP

GmbH & Co. KG



Digital Ignition Systems | Alternator Regulators  
Classic Tachometers | Accessories  
For Vintage Motorcycles and Classic Racing  
2- and 4-stroke  
Moto Guzzi, Ducati, BMW, BSA, Honda, Yamaha, etc.

Busestraße 26a | 28213 Bremen | Germany  
fon +49 (0) 5409 9069826 | mail info@elektronik-sachse.de

## MOTORCYCLE CLASSICS ARCHIVE

2005-2018 USB DRIVE



Now  
**\$29.95**  
~~\$39.95~~

Price does not include shipping and handling.

Bringing you the most brilliant, unusual, and popular motorcycles ever made ... delivered on a flash drive that contains 3,150 articles and plugs into the USB port on your favorite device. Whether you're interested in a particular manufacturer or repairing a specific part, use our search function to bring up 14 years of *Motorcycle Classics*' relevant content! For collectors and enthusiasts, dreamers and restorers, newcomers and lifelong gearheads, we have you well covered. Also included on the USB drive are 71 articles in PDF format. These articles, written by longtime *Motorcycle Classics* contributors Alan Cathcart and Phillip Tooth, appeared originally in print but not in our digital archive.

Call (800) 880-7567 or order online at [www.MotorcycleClassics.com/Store](http://www.MotorcycleClassics.com/Store)

Mention promo code MMCPAJZ1 | Item #9263







**Quality for Over 60 Years**  
The Only Name You Need to Know

Bates Leathers

3671 Industry Ave, Ste C5 • Lakewood, CA 90712

562.426.8668 • fax 562.426.4001

www.batesleathers.com • Made in the USA

**YOUR BRITISH BIKE SUPERSTORE**  
• PARTS • SERVICE • SALES •  
OVER 19,600 PART #S ONLINE  
140+ FREE ONLINE PARTS BOOKS  
WE SHIP WORLDWIDE!!  
**712-781-2351**  
**WWW.BAXTERCYCLE.COM**

Circle #1; see card pg 81

**B50/CCM Specialist**

**JE Pistons**  
**Boyer Ignitions**  
**Carrillo Rods**  
**PVL Ignitions**

**E&V ENGINEERING**  
19294 W. M46  
Howard City, MI 49329  
eveng@pathwaynet.com  
www.evengineering.com  
231 937 6515

**We specialize in BSA, Triumph and Norton**

Cylinder head porting  
Valve seats installed  
Crankshaft lightening and balancing  
Case repairing  
Cylinder boring

Mon-Fri 10am-9pm  
Sat 10am-5pm

**DONELSON CYCLES, INC.**

The Motorcycle People

9851 St. Charles Rock Road

St. Ann, MO 63074

Phone: (314) 427-1204

Fax: (314) 427-7642

(800) 325-4144

- Service for **YAMAHA** **TRIUMPH** **DUCATI** **HONDA**
- Huge Inventory of Parts **TRIUMPH** **BSA** **Norton**
- Since 1962
- We also have Moto Guzzi parts
- Ship daily via UPS and USPS

Circle #2; see card pg 81

## BLACK HILLS MOTORCYCLE SHOW

March 16th & 17th, 2019  
Rapid City, South Dakota

**\$2,500**  
in Prize Money

BlackHillsMotorcycleShow.com

**Easy - Affordable - Effective**  
**Motorcycle Leather Care Line**

Leather with a high shine glossy appearance

Non-glossy coated & oil tanned leather

Revive black oil tanned leather

New & old oil tanned leather

**MADE IN THE USA SINCE 1902**

**For more information: WWW.PECARD.COM**

**Condition Preserve Protect**  
**PECARD**  
LEATHER CARE COMPANY

Circle #5; see card pg 81

5thGearParts.Com



**5thGearParts.com**

Used Honda and Yamaha parts.  
No Auctions, No guess work,  
No delays. Quality used  
parts guaranteed.  
Lots of 80's Honda stuff.

Email: 5thGearParts@gmail.com

Web: 5thGearParts.com

**Designed with**  
**BALLISTIC**  
PERFORMANCE COMPONENTS

**RICK'S MOTORSPORT ELECTRICS**  
1-800-521-0277  
New Lithium-Ion friendly  
rec/regs for vintage bikes!

**WE SPEAK VINTAGE**  
**RICK'S MOTORSPORT ELECTRICS**

Circle #7; see card pg 81





BEAUTY and PRIVACY await you in 3 bed, 2.5 bath 2750 sq. ft. country home in N. California. 8.65 acres with Caretaker cottage, garage with RV storage and 2 cars. Perfect set up for future motorcyclists' destination with room to expand. Exciting roads to travel in every direction. 645,500.

707-984-6263  
ravenhilltop@gmail.com



DOC'S Est. 1969

Custom Derby Covers Motorcycle Parts & More

[www.docsmc.com](http://www.docsmc.com)

10% OFF On-line Order Promo Code: Classic

Or Call 203-757-0295

**Charlies Place**

Vintage Honda specialists since 1993

**ELECTRONIC IGNITIONS  
FOR ALL HONDA STREET BIKES**



*Exclusively designed electrical upgrades for classic Hondas. Exceeds expectations in performance and reliability. Complete performance packages available.*

Made in the USA.

[www.charlies-place.com](http://www.charlies-place.com)

**ikonSuspensionUSA.com**

ikon & Koni rebuilds



Replacement parts

**Sales & tech (814) 592-7003**

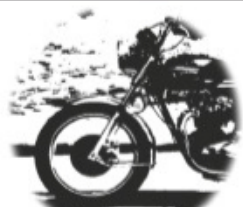
**SPEEDOMETERS  
TACHOMETERS  
& AMP METERS**

Repair and sales of vintage gauges for Japanese, British, European & American bikes



Joel Levine Co. Phone: (404) 219-0594  
610 S Chattanooga St. Toll Free: (800) 456-6267  
Lafayette, GA 30728 E-mail: j14levine@aol.com

[www.joellevinecompany.com](http://www.joellevinecompany.com)



**K.M. Jones Enterprises LLC**  
Parts & Spares For Classic Triumph Motorcycles

**TRIUMPH MOTORCYCLE PARTS**

NOS, New, Used

Genuine AMAL, Lucas and more.

Name brand UK made parts

We have a special emphasis on

"Oil-In-Frame" Triumph 650/750 Twins.

785-925-2042

[kmjonesmotorsports.com](http://kmjonesmotorsports.com)

**I BUY MOTORCYCLES**

1900 to 1986

from one to a

collection and

parts inventories

ph/text. 314-220-9955

[bikecash@swbell.net](mailto:bikecash@swbell.net)

**SIDECARS!**

Velorex, Champion,  
Trans-Moto Watsonian

**THE WARK SHOP**

HOURS: 8 a.m. - 8 p.m. EST

(740) 538-4746

[www.warkshop.com](http://www.warkshop.com)

**Norton Commando  
Electric Start Kit**

Some things are worth the wait. Over forty years after the first Commando appeared, the Alton EKit electric start conversion finally brings it to life at the touch of a button.



Available in the US from  
The Classic Bike Experience

[www.classicbikeexperience.com](http://www.classicbikeexperience.com) or  
call 802-878-5383 [www.alton-france.com](http://www.alton-france.com)

**U.S. CHROME**  
PERFORMANCE COATINGS

**VINTAGE MOTORCYCLE  
CYLINDER PLATING**

Nicom™ Plating & Diamond Honing.  
Abradeable Piston Coatings.

- Plating on Aluminum and Cast Iron
- Vastly Improved Durability and Geometry
- World's Hardest Cylinder Bores Since 1979

**PRESERVE  
YOUR BORE  
SIZE!!!**

Toll Free 866-922-5066  
[www.usnicom.com](http://www.usnicom.com)

US Chrome Corporation  
650 Oak Park Ave.  
Fond du Lac, WI 54935

**Klempf's British  
Parts**

High Quality NOS, Used, Reproduction  
Parts For Vintage

**TRIUMPH NORTON BSA**  
NEW E STORE WITH PICTURES,  
TECH TIPS, SECURE CHECKOUT!

**KLEMPFS.COM**  
507.374.2222





**RIDE 20+ AMAZING  
CLASSIC BIKES**  
**retrotours.com**



**Motorcycle Restoration Services**  
Belgium, WI  
**262-483-5399**  
**www.retrospeed.net**



**SMITHS**  
**MAGNETIC & CHRONOMETRIC**  
**INSTRUMENT Repair**

INSTRUMENTS RESTORED,  
BOUGHT, SOLD, & REPAIRED

A.J.S. ARIEL BSA DUCATI ENFIELD GREEVES HARLEY DAVIDSON LAVERDA	MATCHLESS NORTON TRIUMPH VELOCETTE VINCENT & OTHERS
---	--

**SMITHS**

ph. 224-595-2037 or email  
scott@smithsgagerepair.com  
PO BOX 182, ARLINGTON HEIGHTS, IL 60006-0182

2 STROKE  
**CRANKSHAFT**  
REBUILD  
**ROY'S RIDES.com**  
**573 421-2753**

406  
**Quality**  
**PLATING**  
QP

**Established in 1976**  
We do Aluminum Polishing, Zinc Plating,  
Show Chrome finishes and much more,  
including motorcycle restoration parts!  
**Call us now at**  
**815-626-5223 or fax 815-626-5244.**  
**Visit: www.qualitychromeplating.com**

**R/D**  
**VALVE SPRINGS**

Increase the performance and life of your vintage engine with  
the latest in performance beehive valve springs. Take advantage  
of the light weight of a single valve spring with the performance  
and control of a dual valve spring. Call or email for applications.  
**R/D Spring Corp., Email: info@rdvalvespring.com**  
**Call (760) 948-4698 or Web: www.rdvalvespring.com**

**12v Generators  
for your Classic Bike!**

Upgrade your Vincent, BSA,  
Triumph, Norton, Velocette,  
AMC, Matchless  
today with  
products by  
Alton-France.

**US Distributor:**  
The Classic Bike Experience  
[www.classicbikeexperience.com](http://www.classicbikeexperience.com)  
[www.alton-france.com](http://www.alton-france.com)  
Call 802-878-5383

**Triples**  
PRECISION PERFORMANCE RULE RACE PROVEN

100 psi liquid-filled  
oil pressure gauge  
1/8 NPT male inlet  
1-5/8 diameter body  
with generic fittings  
and heavy nylon oil line  
\$39 + shipping. Custom brackets for  
Meriden Triumphs in stock

**www.triplesrule.com**  
**t150v@aol.com**  
**224-321-4912**

**GAZI**  
**SUSPENSION**  
QUALITY • PERFORMANCE • INNOVATION

**Sport X**

**GAZI USA**  
**EPM Performance Imports**  
**732-786-9777**  
**info@gazi-usa.com**  
**www.gazi-usa.com**

**Motorcycle Classics Hat**

~~\$10~~ **now \$8.99**

**Item #7657**

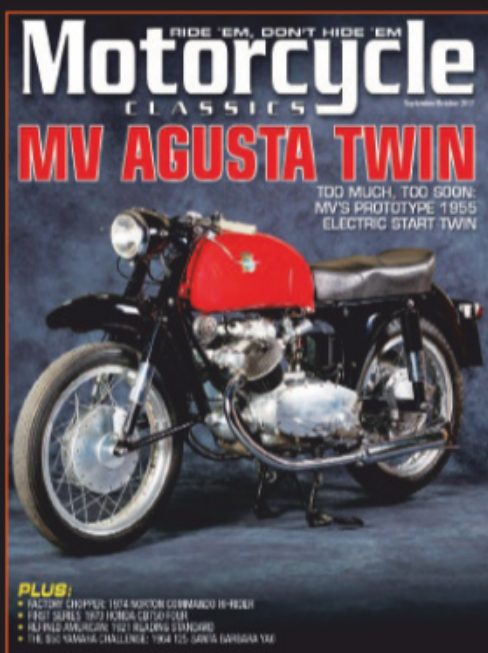
To order call 800-880-7567 and mention promo code MMCPAJZ3  
or visit [www.MotorcycleClassics.com/Store](http://www.MotorcycleClassics.com/Store)





# Motorcycle CLASSICS

## Classic Motorcycles Classic History Classic Rides



Whether you're a lifelong motorcycle enthusiast, a collector or a first-time rider with a taste for the greatest motorcycles ever made, this is exactly where you belong.

**SUBSCRIBE ONLINE:  
Get 6 issues for only**

**\$34.<sup>95</sup>**

[www.MotorcycleClassics.com/special](http://www.MotorcycleClassics.com/special)

That's one complete year  
(6 issues) of **Motorcycle Classics**.

Call 800-880-7567  
Use promo code HMCHSJZX.



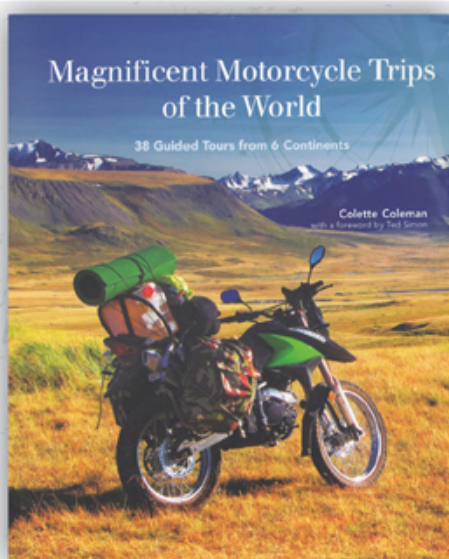


## SHIFTING GEARS AT 50

In *Shifting Gears at 50*, author Philip Buonpastore emphasizes what older riders should be aware of and which factors can affect their rides. Split into two parts, the book first covers safety advice to consider and precautions to take while on your ride, followed by unique photographs and insights from five of the author's favorite long-distance tours around the country. #9356 ~~\$24.95~~ \$22.95



**NEW**



## MAGNIFICENT MOTORCYCLE TRIPS OF THE WORLD

Featuring 40 spectacular routes from the snowy passes of Patagonia to Australia's Red Centre, this book is the perfect inspiration for your next big motorcycling adventure. Full of stunning photography and route maps showing points of interest along the way, the guide focuses on journeys that are accessible to everyone.

#8865 ~~\$19.99~~ \$17.99



## MOTORCYCLE CLASSICS HAT

Great for any classic motorcycle enthusiast! This adjustable baseball-type hat is embroidered with the *Motorcycle Classics* logo. Show off your favorite magazine with this classic black hat.

#7657 ~~\$10.00~~ \$8.99



## MOTORCYCLE CLASSICS STAINLESS STEEL TUMBLER

Upgrade your old mug with our *Motorcycle Classics* brand insulated tumbler! The 20-oz. black stainless steel tumbler features a double wall that keeps your drink hot for 5 1/2 hours or cold for 24 hours. With the *Motorcycle Classics* logo, this tumbler is just as distinctive as it is handy. Whether you're at home or on-the-go, this tumbler will keep your drink just as fresh as when you first poured it.

#8748 ~~\$18.99~~ \$14.99  
**NEW LOW PRICE**



## THE WOMAN'S GUIDE TO MOTORCYCLING

Author Lynda Lahman, herself a motorcycle owner and rider, provides a comprehensive look at motorcycling techniques, street smarts, and safety concerns while addressing female-specific challenges as well as issues that all bikers face from a female point of view. Lahman provides advice about choosing a bike, proper maintenance, types of riding, bike clubs, and more.

#8248 ~~\$24.95~~ \$19.95



## MASTERING THE RIDE

*Mastering the Ride* provides an exhilarating course in skills, safety, and common sense. With instructional color photographs and drawings, the book covers everything from improving a rider's skills of speed and passing to anticipating and handling street and road hazards, to executing quick stops, and more.

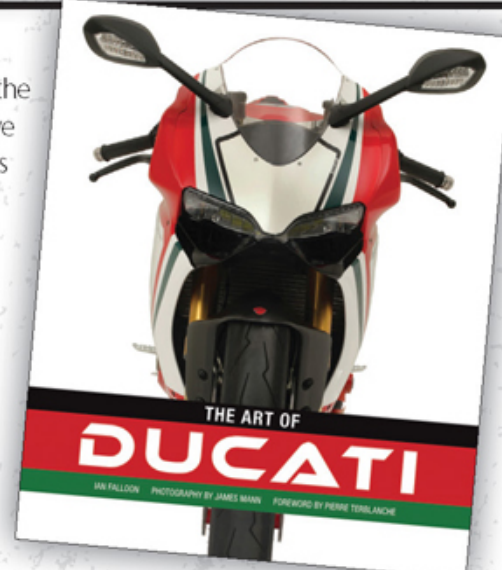
#9353 ~~\$24.95~~ \$22.95

**NEW**

## THE ART OF DUCATI

From the single-cylinder bikes of the 1950s and 1960s to the bevel-drive twins of the 1970s and early 1980s to the high-performance bikes of the 21st century, *The Art of Ducati* presents a gorgeously illustrated, wonderfully curated review of more than six decades of Ducati excitement.

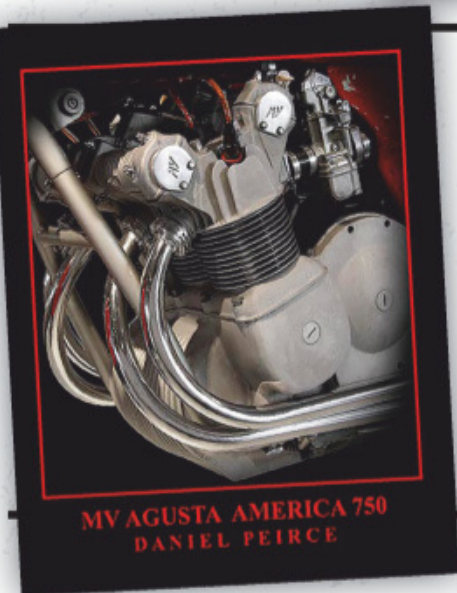
#7358 ~~\$60.00~~ \$50.00





#### DANIEL PEIRCE BMW R69 PRINT

Order this beautiful and unique print of a BMW R69 today ! This Endura Metallic print is photographically printed by professional motorsports photographer Daniel Peirce, and the subtle metallic surface produces a depth and color richness unmatched by any other process. This 16" x 20" print-on-demand metallic print is signed and numbered by the artist. Print longevity is an impressive 100 years. Allow two weeks for delivery  
#3805 ~~\$69.00~~ \$62.10



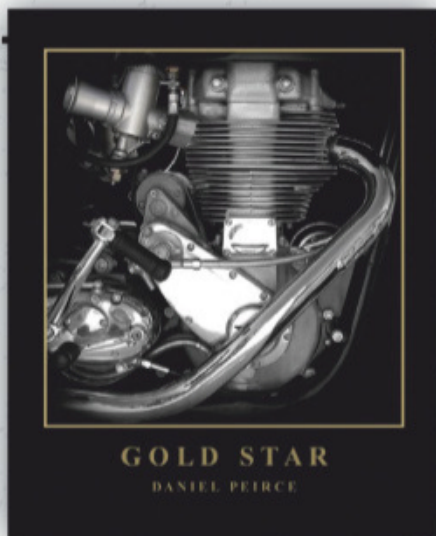
#### DANIEL PEIRCE MV AGUSTA AMERICA 750

This MV Agusta America 750 engine metallic print measures 16 by 20 inches and was created by professional motorsports photographer Daniel Peirce. Each print is printed on demand, signed, and numbered by Peirce. Allow two weeks for delivery  
#8993 ~~\$69.00~~ \$62.10



#### DANIEL PEIRCE NORTON 850 COMMANDO PRINT

Own this unique print of a Norton 850 Commando today! This Endura Metallic print is photographically printed by professional motorsports photographer Daniel Peirce, and the subtle metallic surface produces a depth and color richness unmatched by any other process. This 16" x 20" print-on-demand metallic print is signed and numbered by the artist. Print longevity is an impressive 100 years. Allow two weeks for delivery  
#3797 ~~\$69.00~~ \$62.10



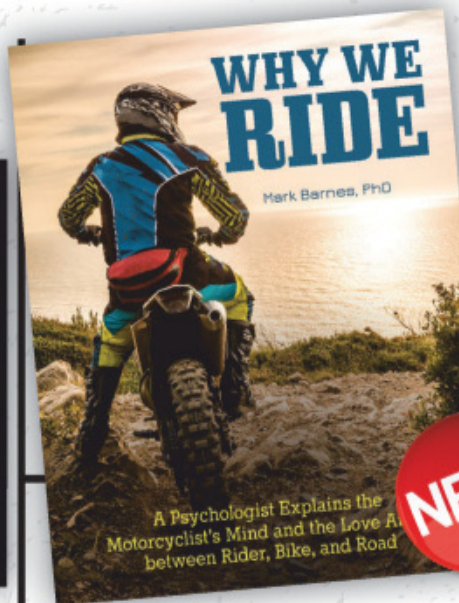
#### DANIEL PEIRCE GOLD STAR PRINT

This Gold Star engine metallic print measures 16 by 20 inches and was created by professional motorsports photographer Daniel Peirce. Each print is printed on demand, signed, and numbered by Peirce.  
#3794 ~~\$69.00~~ \$62.10

#### MOTORCYCLING THE RIGHT WAY

*Motorcycling the Right Way* is the perfect book for beginners, returning riders, and experienced riders who are interested in learning more about the dos and don'ts of motorcycling. Along with safety, you will learn multitasking, sensory intelligence, risk smarts, visibility, and more!

#9359 ~~\$24.95~~ \$22.95



#### WHY WE RIDE

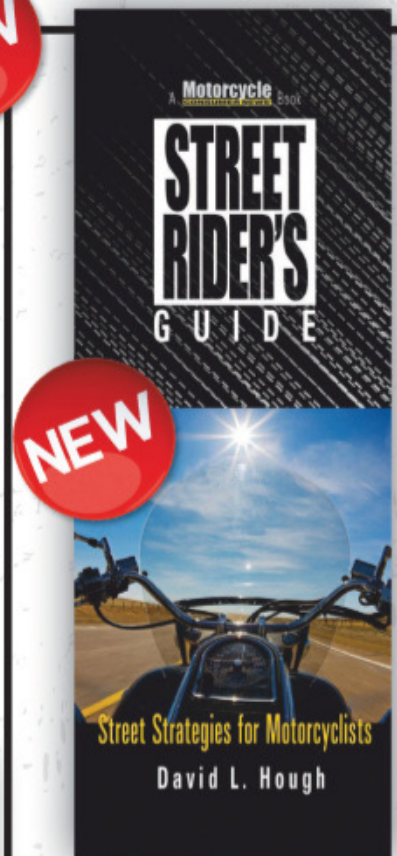
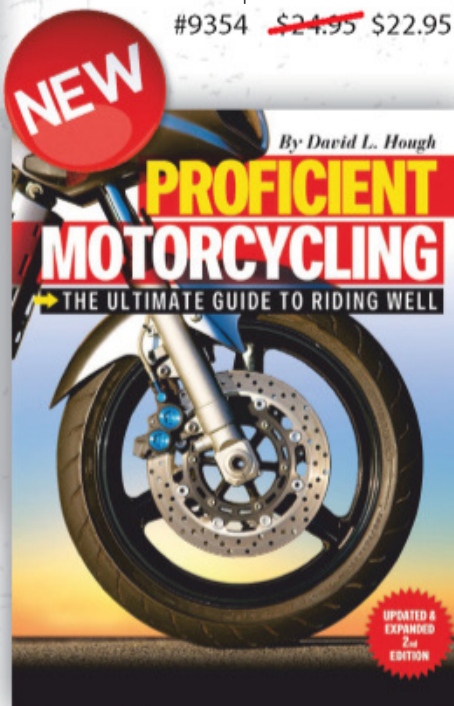
*Why We Ride* serves as an anthem for those who do and an explanation for those who don't. The book presents the insights of Mark Barnes, a motorcycling clinical psychologist, as he articulates the elusive physical, emotional, and interpersonal elements that make the world of the motorcyclist such a rich and exciting place.

#9290 ~~\$24.99~~ \$22.95

#### PROFICIENT MOTORCYCLING

In *Proficient Motorcycling*, author David Hough lays out a clear course for all riders who want to sharpen their handling skills and improve their rides. This updated and expanded second edition offers new riders and road warriors the advice they need to be prepared for anything when on the road. It teaches how to avoid accidents and how to handle the unexpected.

#9354 ~~\$24.95~~ \$22.95



#### STREET RIDER'S GUIDE

*Street Rider's Guide* spells out safety tactics for motorcycle riders looking to get the most out of their favorite hobby for as long as possible. Covering topics from A to Z, this is the go-to handbook for motorcyclists who want quick solutions to commonly encountered obstacles and road challenges, and who want to ride safer through improved situational awareness.

#9355 ~~\$17.95~~ \$15.95

To order,  
call toll-free  
**800-880-7567**  
(outside the United States  
and for customer service,  
call 785-274-4360),

or go to  
**MotorcycleClassics.com/RecommendedProducts**

Mention code **MMCPAJZ7**

**Sale ends: 04/15/19**



# Motorcycle

## CLASSICS

RIDE 'EM DON'T HIDE 'EM  
RECOMMENDED PRODUCTS

### MOTORCYCLE CLASSICS WATER BOTTLE

Whether you're heading to work or getting ready for a long ride, this *Motorcycle Classics* Stainless Steel Water Bottle will keep your drinks cold for the whole trip! This 17-ounce bottle is double-walled, 18/8 stainless steel with vacuum insulation, and it will keep drinks hot for 12 hours and cold for 48.

9116 ~~\$19.99~~ \$17.99



### MOTORCYCLE CLASSICS T-SHIRT

Newly designed and exclusively available through *Motorcycle Classics*, this charcoal T-shirt is soft-hand printed in white lettering with the magazine's logo and slogan, "Ride 'Em, Don't Hide 'Em," emblazoned across the chest. Available in unisex sizes S-2XL.

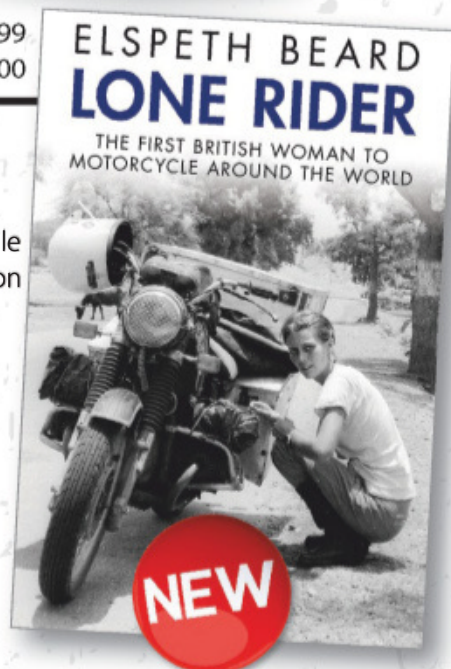
#8214 - 8217 S-XL ~~\$15.00~~ \$13.99  
#8218 2XL ~~\$17.00~~ \$15.00



### LONE RIDER

In 1982, at the age of 23, Elspeth Beard left her family and friends in London and set off on a 35,000-mile solo adventure around the world on her 1974 BMW R60/6. From riding through deserts and mountain ranges to faking documents and surviving crashes, Beard tells the whole story of her ride with honesty and wit. You don't want to miss this extraordinary and moving story of a unique and life-changing adventure.

#9115 ~~\$19.95~~ \$17.95



### MOTORCYCLE CLASSICS STREET BIKES OF THE '60S AND '70S PACKAGE

This package is perfect for anyone who wants an inside look at the great bikes made in the '60s and '70s. Read all about the 1966 Honda CB450K0 "Black Bomber" or the 1969 Ducati 350 Mark 3 D that defined the '60s, and gain new insight about the bikes of the '70s like the Honda GL1000, Gold Wing and the Suzuki GS1000.

#8502 ~~\$13.98~~ \$11.99



### HOW TO BUILD A CAFÉ RACER

This book starts with chapters on planning and choosing an appropriate bike, followed by chapters that detail the modifications that will likely be embraced by anyone converting a stocker to a rocker. From shocks and tires to engine modifications, Doug Mitchel's book lays out each type of modification and how it's best carried through. The center of the book holds a gallery of awesome finished bikes, and the final chapters include two start-to-finish Café builds.

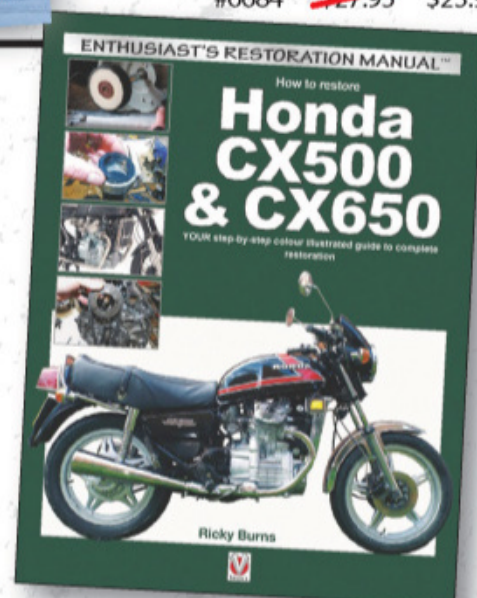
#6684 ~~\$27.95~~ \$23.95

### HOW TO RESTORE

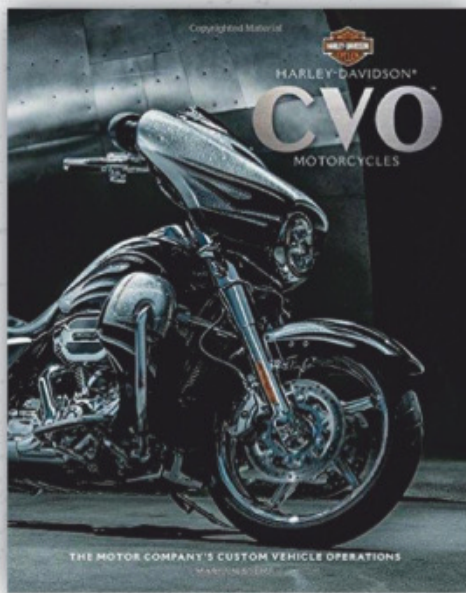
#### HONDA CX500 & CX650

You don't need expert knowledge or a fully fitted workshop for a restoration project with *How to Restore Honda CX500 & CX650*. Packed with photographs and detailed instructions, this book is your perfect guide from start to finish.

#7759 ~~\$59.95~~ \$54.95



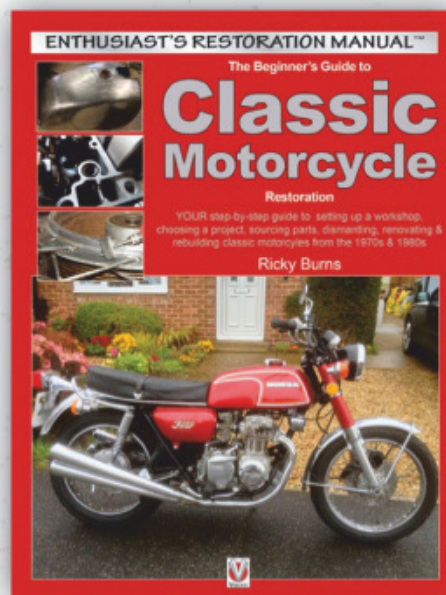




## HARLEY-DAVIDSON CVO MOTORCYCLES

Harley-Davidson Custom Vehicle Operations (CVO) motorcycles are the pinnacle of the Motor Company's customization: custom-shop details that push the boundaries of style and performance with high-impact paint, killer wheels, big engines, and exclusive technology. Designed in-house since 1999 at Harley-Davidson's world-class Willie G. Product Development Center, built by the factory, and available through Harley-Davidson's dealer network, these machines set themselves apart from the pack.

#7924 ~~\$50.00~~ \$42.50



## CLASSIC MOTORCYCLE RESTORATION

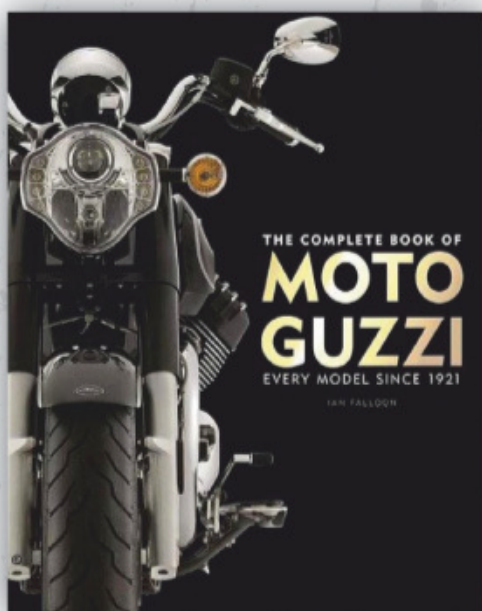
The 1970s and 1980s were wonderful eras for the motorcycle, with their assortment of crazy two-strokes, and the first multi-cylinder Superbikes coming thick and fast from Japan. It was a time of fast-paced engineering advances, and a time in motorcycle history that is unlikely ever to be repeated. Those over-budget motorcycles that we longed for then are now available well within budget ... and just waiting to be restored. Packed full of photographs, and with detailed instructions, this book is the perfect companion for any classic motorcycle restorer. *While supplies last*

#7307 ~~\$49.95~~ \$44.95

## THE COMPLETE BOOK OF MOTO GUZZI

The oldest European motorcycle manufacturer in continuous production, Italy's Moto Guzzi has built some of the most iconic motorcycles ever produced. Established in 1921, the company is one of the most traditional motorcycle makers and also one of the most innovative. For the first time ever, *The Complete Book of Moto Guzzi: Every Model Since 1921* collects all of these iconic motorcycles in encyclopedia form, written by widely respected Moto Guzzi expert Ian Falloon.

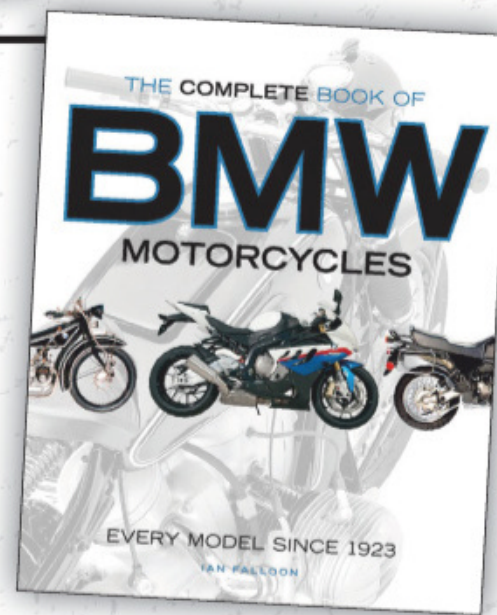
#8462 ~~\$60.00~~ \$49.99



## THE COMPLETE BOOK OF BMW MOTORCYCLES

*The Complete Book of BMW Motorcycles* is a thorough year-by-year guide to every production machine ever built by Germany's leading motorcycle manufacturer. Get the story behind bikes such as the pre-World War II R5, the military R12, and the K1 "flying brick". This guide captures nearly a century of motorcycling excellence with a combination of historic and contemporary photos.

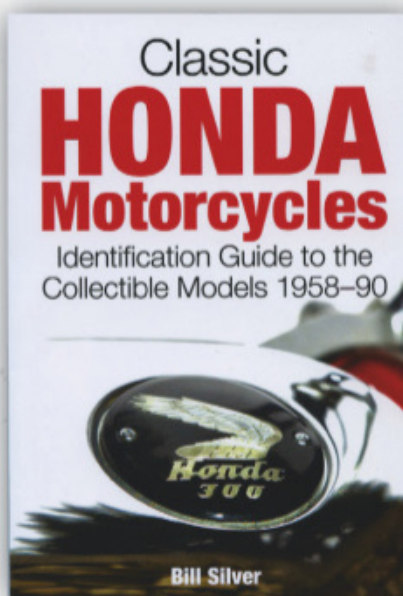
#7756 ~~\$50.00~~ \$42.50



## MOTORCYCLE CLASSICS TALES FROM THE ROAD

This 96-page guide is the next best thing to actually hopping on your bike and taking a long road trip with no particular destination in mind. Filled with stories of people who have ridden through places from the Big Sur coast in California to Australia, the issue will motivate you to get on your bike and take a ride. Packed with pictures of the riders' travels and routes, this issue will help you see the beauty of different places from the view of a bike.

#9106 ~~\$6.99~~ \$5.99



## CLASSIC HONDA MOTORCYCLES

Honda made its mark on the motorcycle world with small, affordable bikes, and grew well beyond that to create some of the most important performance machines ever built. Today, these bikes are increasingly coveted by collectors and enthusiasts. This guide to the collectible Hondas gives prospective buyers a leg up on the current market for groundbreaking classics.

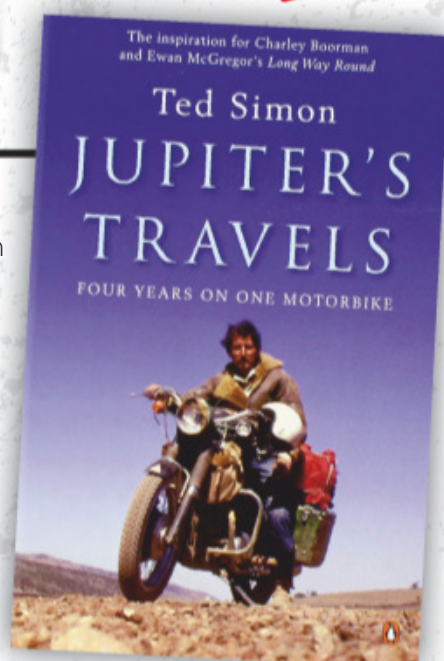
#6428 ~~\$40.00~~ \$34.00

## JUPITER'S TRAVELS

This classic book, originally published in 1979, recounts the world by motorcycle from 1973 to 1977. In four years he covered 78,000 miles through 45 countries on a Triumph T100 500cc motorcycle. Almost 40 years later, this 456-page, time-honored book continues to change lives and has inspired many more to conquer their fears and travel the world.

*While supplies last*

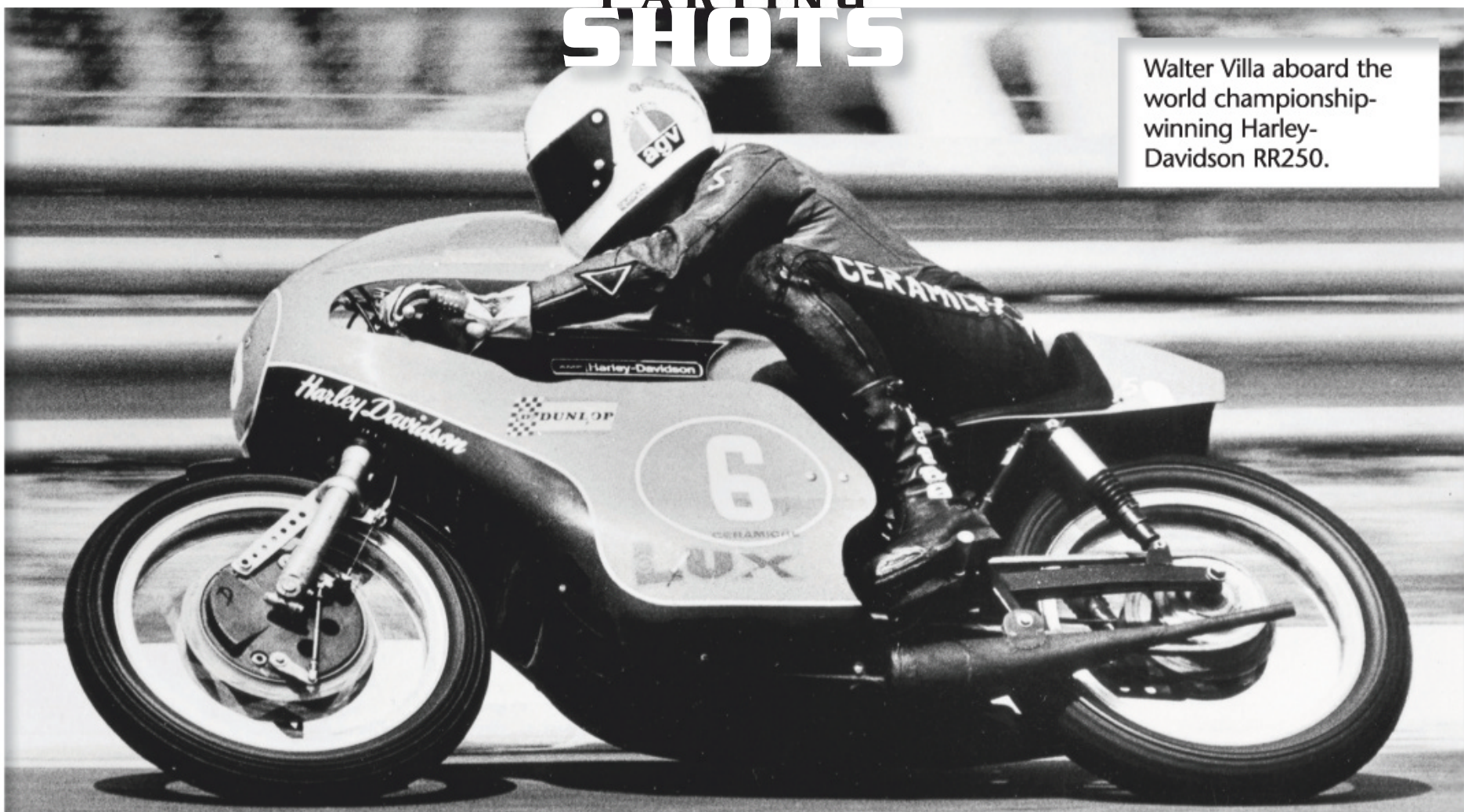
#6468 ~~\$24.95~~ \$21.95



To order,  
call toll-free  
**800-880-7567**  
(outside the United States  
and for customer service,  
call 785-274-4360),  
or go to  
**MotorcycleClassics.com/RecommendedProducts**  
Mention code **MMCPAJZ7**  
**Sale ends: 04/15/19**



Walter Villa aboard the world championship-winning Harley-Davidson RR250.



## A Harley by any other name is still a Harley

**W**hat's this, a Harley-Davidson with — gasp! — expansion chambers, not extended fishtail pipes? And no ape hangers or chromed everything to be seen anywhere? Well, yes, and this particular Harley-Davidson, the RR250, happened to win four Grand Prix World Championships, all with famed Italian racer Walter Villa on board as he topped the 250cc class in successive years, 1974-1976, his fourth title coming in the 350 class with an engine bored and stroked to 347cc. Think of Signore Villa's 1976 double as a special Bicentennial memento to America's premier motorcycle marque.

Harley's path to four world championships is rather interesting, the journey starting in 1960 when the Milwaukee-based company purchased 50-percent interest in the motorcycle division of Italian company Aermacchi. The union gave Harley immediate access to Aermacchi's small-bore bikes including the Ala D'oro, a model powered by a single-cylinder 4-stroke 250cc engine.

U.S. race fans might remember it as the Sprint, a bike used by Harley-sponsored racers back in the 1960s for competition on short track ovals and in AMA lightweight road races. The Sprint was a worthy bike, but severely outgunned by 2-strokes, especially Yamaha's twin-cylinder bikes of the era. But as the saying goes, "If you can't beat them, join them," so Aermacchi developed a twin-cylinder 2-stroke of its own. Starting in 1971 with a pair of 125cc air-cooled cylinders from a motocross race bike, engineer William Soncini created the company's first road racing 250 twin. The bike was ready for the 1972 GP season, and veteran racer

Renzo Pasolini piloted the new Harley to three wins, ultimately losing the championship by a single point to Finnish rider Jarno Saarinen and his Yamaha. Sadly, both riders lost their lives in a horrific crash during the Italian GP at Monza the following season. By 1974, Harley had purchased full rights to Aermacchi's motorcycle division, and called on Villa to be its No. 1 rider.

Aermacchi later shaved off the engine's cooling fins to wrap the cylinders and heads with water jackets for better cooling, which allowed for more compression and more power. The RR250 ultimately produced a claimed 53 horsepower. Increasing bore and stroke to 64mm x 54mm upped displacement to 347cc for a 350-class entry, and variations of a 500cc engine were tried as well, one with four carburetors feeding a pair of cylinders! More fuel and air into the engine, reasoned engineers, meant more horsepower to the rear wheel. But as Allan Girdler explained in his book *Harley Racers*, "It was easier and more efficient to double the number of carbs when the displacement doubled [over the RR250's], than to find a pair of carbs twice as big." No matter, the RR500 never enjoyed the success of the RR250 or RR350.

Meanwhile, here in America, Harley's factory rider Gary Scott startled the AMA Loudon Lightweight race to score the sole RR250 win for Harley's home crowd. In 1978 Harley sold Aermacchi to restructure the company, in the process giving full attention to extended fishtail pipes and chromed everything.

— Dain Gingerelli



Villa tucked in aboard the RR250.





Quality oils, fuel treatments, lubricants and detailers for any era of motorcycle



*With over 15 blends of motorcycle oil, no matter what you ride, Lucas Oil has you covered*

Motorcycle Oil Tech Line

**855.462.9335**

 Lucas Motorcycle Products

If you sell Lucas Oil Motorcycle Products call or email [ryan@lucasoil.com](mailto:ryan@lucasoil.com) to be listed on our website



**Want a FREE Lucas Oil Motorcycle Products cell phone pop socket? visit [LucasOilMotorcycleProducts.com/mcclassics](http://LucasOilMotorcycleProducts.com/mcclassics) to enter**



HONDA | SUZUKI | YAMAHA | KAWASAKI | TAKEGAWA | KITACO | G-CRAFT | OVER RACING | DAYTONA  
VESPA | MOTO GUZZI | APRILIA | DERBI



PARTS FOR A BETTER RIDE

優れたライディング向け部品

CMSNL.COM

CMS PINUP SERIES - FREE SPIRIT GIRLS - 4/4

1973 HONDA ATC70 KO